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VOLUME 3
NOV. 1991

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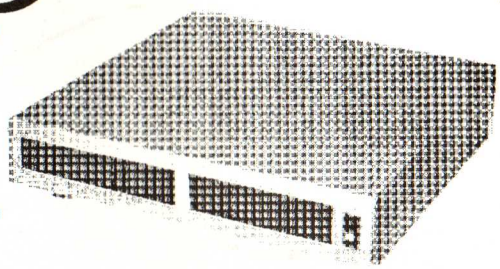

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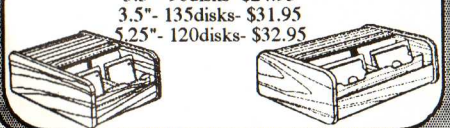

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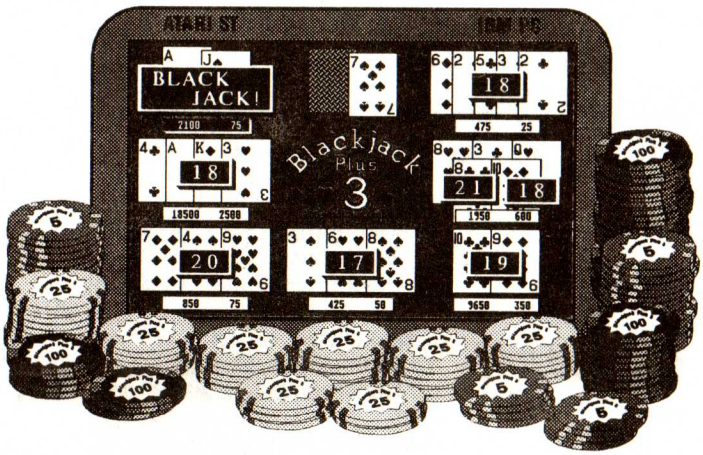

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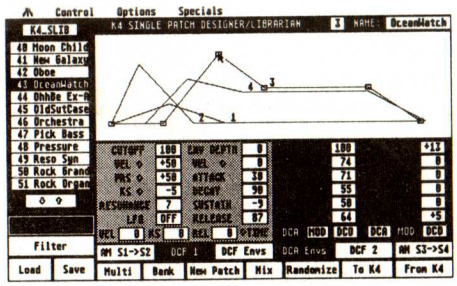

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Volume 3

ATARI

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Artwork captured from various ST games with the use of Power Computing's Ultimate Ripper. Games include: Dragon's Lair II: TimeWarp, Iron Lord from UBI Soft, Populous and Bard's Tale from Electronic Arts, Dungeon Master from FLT, Bloodwych from MirrorSoft and Wrath of the Demon from ReadySoft.

INTERFACE

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Nov. 1991

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ATARI INTERFACE

Your Connection to the Atari Users Community

Publishers
Bill Rayl / Patricia Snyder-Rayl

Managing Editor — Patricia Snyder-Rayl
Editor — Bill Rayl
Contributing Editors
Dave Plotkin, Jay Craswell, Tim Holt

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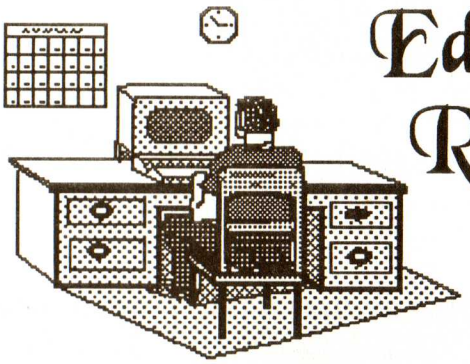

Editorial Ramblings

HOPEFULLY, EVERYONE WHO wanted to got a chance to talk with us at the WAACE show. We're typing this before the show, so forgive us for trying to forecast the future!

This issue contains a report on the recent Glendale show from SVACE President Gary Klugman. Next issue will have a report of the WAACE show. If all goes well with the mail, you should be reading this a week or so after the show finished.

This will be our second appearance at WAACE. We attended the 1989 WAACE show, the last held in a local high school and free to the public. We did very well there, mostly introducing ourselves to Atarians in the DC area.

The last show of the year we plan to attend will be the Chicago ComputerFest by Atari at the O'Hare Ramada in late November. That will bring us right into the holiday season. Boy, did this year go by fast!

Speaking of year's end, many of our participating clubs are coming up for renewal of their ST disk and magazine subscriptions. We'd like to inform or remind the clubs that the cost for the ST disk subscription has gone up this year. Any club officer who has questions should please call us at (313) 973-8825.

If your club renewed at the old rate a few months ago, the subscription at the old price will be honored, since the club got its funds in before "official" notification. The price increase is due to professional duplication costs and use of diskette mailers, which translates into higher mailing costs.

Finally, we'd like to thank all the people who've sent back survey forms. They've been interesting reading for us! If you haven't sent you form back, please do so. This way we're sure to know what your needs and likes/dislikes are.

Bill & Pattie Rayl

From The Reader's Viewpoint

Dear Editors,

I enclose my check for $12 for the September 8bit and ST Disks of the Month. I am enjoying the previous 8bit disks, and just finished transferring several dozen Degas pictures (some converted from Spectrum 512) to the 8bit using the ST X-former for use with the DEGASRD.OBJ program.

STart/ANTIC owes me for my 8bit game GEMINI from the Feb/March 1991 issue. But, like David Plotkin, I only hope the future holds something positive for us all.

ANTIC and many other magazine gave us an awful lot for our money for almost 10 years. Now, we're in the age of DTP, and magazines like yours and Current Notes (for which I do the "Small Miracles" column) and ST Informer and AtariUser fill our needs very well.

I especially like the fact that you have some "type-in" features. I personally would like to see a regular column on programming in ACTION! Not necessarily whole programs, but some useful subroutines.

I look forward to your features on PageStream, since I just recently received the 2.1 upgrade.

I use both XE and STE quite a bit. I do not plan to stop using either one for a long, long time! I also find that PC Ditto (the software version) gives me more IBM compatibility than I want or need.

Thanks again for the swell magazine which seems to be getting a little better each issue.

I understand some people are on your case for irregularities of delivery, etc. Get the magazine out, and I will patiently wait while you do your best. Better to be late than to turn out something useless which satisfies no one.

The Atari market is in bad shape right now, and has nowhere to go but up. I refuse to engage in "gloom & doom" activities. I don't see the value in analyzing every detail and wondering why this or that doesn't work or isn't being done.

Mass markets always want the comfort of a handy Radio Shack store or Sears computer department where they can go and ask questions, even if they leave livid with rage because no one can answer their questions or solve their problems.

When I play Lemmings, I always think of them as the ignorant masses of potential computer buyers whom I lead to the golden arches of Atari!

Continued best wishes and good luck!

Sincerely yours,
Frank Kweder

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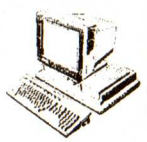

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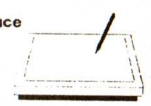

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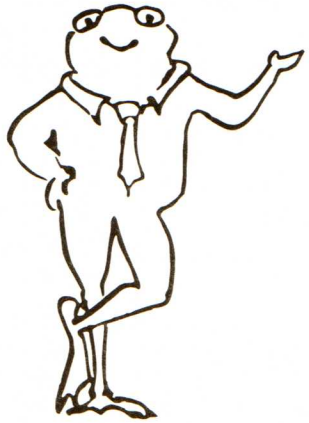

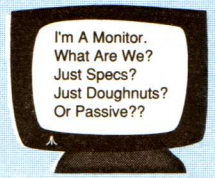

HANDY TIP

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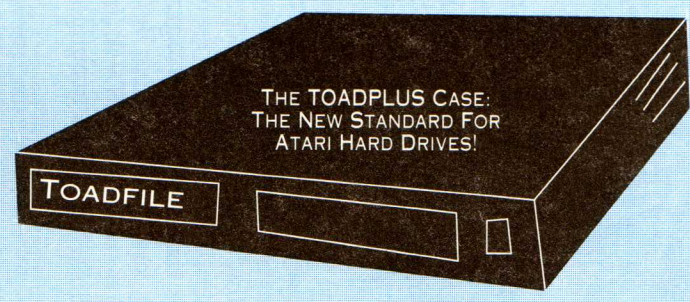

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Right on Target

David Plotkin
Contributing Editor

Why not sell a desktop publishing solution—a box with Atari insides, software and a laser printer—that doesn't say Atari on it anywhere?

Random Access

I just got back from the Glendale Atari show, and while I won't describe it for you (my friend Gary Klugman has done an able job of that elsewhere), I *was* surprised by the upbeat attitude of the show. People were having a good time, vendors were selling out of their products and, in general, virtually everyone was smiling.

I don't know whether it was just that there was no World of Atari Show this year, or that Atari is finally getting ready to do something serious with the TT and the Notebook, but it was great.

I think I mentioned in a past column that what really gets me to continue to go to Atari shows is the people. I renewed my acquaintance with Mike Schuetz, an editor of Atari Journal, a German ST magazine, and I met Michelle (ATARI-OZ) from Atari Australia. Both of these folks are absolutely delightful, and it was experiences like these that made it going worthwhile. Even Dave Small was smiling (as he proclaimed Atari is a corpse *ouch*).

I even sat down for a long talk with Nathan Potechin from ISD (Calamus and DynaCADD), who told me of some exciting developments to come on those products. Nathan is a wonderful guy, very competent, and very dedicated to the Atari market.

He is the president of the IAAD (Independent Association of Atari Developers). He told me he was pleased that I had remained interested in Atari after STart folded up. And you know what? I am pleased that guys like Nathan care enough to notice. Kind of helps make it worthwhile.

A few issues back, I described the advantages of true multitasking and wondered if MultiGEM (from RIMIK Enterprises) might just fill the bill. I had a chance to work with MultiGEM fairly extensively this weekend, and am happy to report that, in large part, it works well. It allows you to load programs into the Desk Accessory slots under the DESK menu—so you are limited to six programs running at the same time.

But, since you are talking about a 68000 processor that isn't real good at keeping a lot of balls in the air at once anyway, I don't see that this is a problem. If you need accessories, of course, this reduces the number of programs you can run concurrently. Rich Betson of RIMIK recommends MultiDesk (from CodeHead Software) to get around that problem.

From what I could see, except for a few MIDI programs that do some totally illegal things to the operating system, multi-tasking has come to the ST. Check it out.

Another development is some new products from the CodeHeads. Yes, I know, a few issues back I said that they weren't going to do any more products for the ST. Charles and John (the CodeHeads) swear they brought out the new products just to make a liar out of ol' Dave.

At any rate, the amazing one is a vector graphics package that can translate from standard paint package formats to vector graphic files—and edit the results. It's pricey, but very powerful.

Selling Solutions

There is a controversy brewing in the Amiga world that I think has some bearing for Atari users. As you are probably aware, the Amiga has not been selling very well, for many of the same reasons that Atari computers have not taken the world by storm.

Image seems to be the main problem—the Amiga is not perceived as a capable computer, although it *is*. Commodore has continue to upgrade the machine through the various chips in

the 680x0 line—culminating with the A3000, running a 68030 chip at very high speeds. But people still won't buy them.

Recently, Newtek came out with a device, named (strangely) the "Video Toaster." This box enables the Amiga computer to produce extraordinarily high quality video effects. It allows professional studios to provide results that are quick, inexpensive and stunning. The problem, of course, is that the Video Toaster requires an Amiga to run.

Now, granted, some professionals have realized the power of the Amiga and purchased them despite the "stigma," but many have not. Yet, these are the very people who are interested in what the Video Toaster can do. So, what Newtek has done is package the Amiga with a Video Toaster in one case (actually, an Amiga case) and cover the Amiga nameplate with their own.

People are buying the silly things in droves, because Newtek has a reputation for quality products. In fact, Newtek even went so far as to show a version that connected to a Mac at the MacFest in San Francisco. The only thing different was that you could use the Mac keyboard and mouse to drive the Amiga. Pretty clever, huh?

I wonder if Atari couldn't learn a lesson here. Atari computers are really great for things like inexpensive desktop publishing. The problem is that people don't buy Ataris for "serious" work. Why not sell a desktop publishing solution—a box with Atari insides, software and a laser printer —that doesn't say Atari on it anywhere? Think it's far out? In Germany, Ditek (makers of the Calamus DTP package) is marketing something they call the "Calamus Tower" which is exactly that. The computer itself is an Atari computer, but they repackage the parts into another case with the Calamus label. I understand they are doing quite well with it.

And they aren't the only ones. 3K Computerbild has a similar setup. One of the ways this kind of thing can actually hurt Atari is that it doesn't promote the Atari name the way stock Atari computers do. Nevertheless, if it sells boxes, I would say it is worth it. With the advent of the 68030 accelerator boards, these boxes can be very fast, too.

See you next month.

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Eight Bits of Atari History, Part 2 or The Way It Might Have Been

Ed Hall (AAAUA)

This month's installment brings IBM into the home computer picture.

IBM Buys Atari!

Atari not only started a whole new industry in 1972, it helped launch a revolution. First of all, Atari's video games subtly altered the relationship between people and their television sets by changing people's roles from a passive one to an active one. Then, by infiltrating so many homes (there was a videogame in 17% of American households by 1982), it prepared the way for a far more important device, the personal computer.

If the personal computer was revolutionary, then IBM came to symbolize all that was being rebelled against. "Personal" computers were designed by people who wanted their own machines, electronic hippies who didn't want to genuflect before drones in white lab coats to get computer time. For them, IBM was the enemy—rich, powerful and conservative—a company of blue-suited clones. IBM was the Establishment and its product was "impersonal" computers.

In their early years, companies like Apple and Atari could not have been farther in spirit from IBM.

One day, when Apple was readying for a visit from Bank of America officials, Mike Scott had to get a programmer to quickly expunge the low-score message "Pure Shit" from the Apple version of Breakout. And, at Atari, when a visiting rep from Sears viewed a program he found bizarre and wondered aloud what drugs the designer had been on, someone stepped forward with a lighted joint to show him.

But the wild and woolly days began to change as Corporate America took notice of the money these firms were generating.

Warner Communications, a huge entertainment conglomerate with holdings in the film and record industry, took over Atari in 1976. It sank a lot of money into the VCS game unit and brought it to market in 1977. Even then, there was a lot of competition and Atari might not have survived without the backing of its parent company. But in 1979, Warner's patience paid off when Space Invaders arrived from Japan and touched off a worldwide videogame craze.

By then Nolan Bushnell was gone. He had hung around as chairman for a couple of years after Warner took over, but his interest faded quickly. Early in 1979 his position was filled by Ray Kassar, one of the first of a new breed of executives to arrive in the upper echelons of the personal computer industry.

Unlike Scott and Markkula at Apple, Kassar had no prior knowledge of, experience with, or interest in computers. His background was not in engineering, but in textiles—underwear and rugs, to be precise. He cut out tub parties, cranked up security and established dress codes. "Marketing" became the new battle cry.

The year that Kassar took over as chairman of Atari was significant not only for the arrival of Space Invaders, but also for the debut of Atari's own computers. The Apple success story was a powerful reason to enter the market, but where Breakout had exerted a subtle influence upon Woz and the Apple II, videogames played a more prominent role in the development of the Atari computers.

Since games were already an important segment of computer software, it was clear that any computer produced by Atari, the acknowledged leader in videogames, would be a formidable game machine.

In fact, Atari's computers evolved out of its home videogame unit, the VCS (Video Computer System), with Steve Mayer and Joe Decuir being principal designers of both systems.

Powered by the same microprocessor as the Apple II, the Atari computers used additional custom chips which made them unrivalled in the home computer market for sound and graphics. Jay Miner designed the ANTIC and CTIA chips, while Doug Neubauer did the POKEY chip.

Neubauer also wrote Star Raiders, the game which showcased the Atari's advanced graphics so well that many people bought the computer just to play the game.

In addition to their game-playing ability, the design of these new computers reflected Atari's mentality in another way.

Woz had given the Apple II eight slots which were specifically designed to make it easy to hook up additional circuit boards. Atari computers, on the other hand, were basically closed systems, having only a few slots intended for memory expansion. The Apple II's

design attracted numerous companies which became rich making peripherals and add-ons. The availability of such items played an important role in extending the life of the Apple II, and was just another element in the synergy of success which the Apple II enjoyed.

Despite this shortcoming, Atari's computers initially sold well and soon carved out a respectable share of the home market. Nevertheless, it was VCS sales which accounted for the major portion of Atari's revenues. In 1980, Apple products may have been selling like crazy ($117 million in sales), but Atari's volume of business was even greater ($415 million). In six months, Warner stock shot up 35 percent. Soon Atari was accounting for well over half of Warner's operating profit, including many times more than its record and film divisions.

But even as Atari reaped fantastic profits, it was already sowing seeds which would contribute to its own downfall. First of all, success made the new Atari overconfident; it was making so much money ($2 billion in sales in 1982) that it came to believe it thoroughly understood the home computer and videogame marketplace. In fact, no one did. It was a time when a new company like Osborne Computer could go from multimillion dollar sales one year to bankruptcy the next.

Even larger companies like Apple and Atari weren't impervious to financial trouble, as they were soon to discover. One reason was simply a factor of their explosive growth—they became increasingly bureaucratic and had trouble reacting quickly enough to the rapidly changing demands of the marketplace.

However, both Apple and Atari were generating so much revenue that they had a larger margin of error than smaller companies. Apple II sales carried the company through the twin debacles of Apple III and the Lisa, as well as the long development period of the Macintosh.

At Atari, the company continued to reap vast profits despite its backward policy toward software—a policy directly attributable to Ray Kassar's ignorance of the product he was selling. For the new Atari, computers and videogames were simply another consumer product whose success was primarily dependent upon marketing.

Atari had decided that the formula for success was in buying the rights to games like PacMan, which had already proved successful in the arcades, or spinoffs from movies like "ET" and "Raiders of the Lost Ark." Atari spent millions acquiring such rights, then fiercely protected them through lawsuits.

Consequently, Atari downplayed the importance of its programmers. After all, it was marketing, not programming, which had brought in the money. At a time when other companies were treating their programmers like rock stars and paying them sizeable sums in royalties, Atari refused to acknowledge their names and in many cases, as with Star Raiders, paid no royalties at all.

When some of them complained, Kassar claimed they were no more important than designers of towels. As a result, Atari lost a number of gifted programmers, who left to start up firms like Activision and Imagic, companies whose software sales soon began to bite into Atari's profits. In 1980, Activision's first year of business, the company grossed nearly $70 million.

Kassar also tried to keep the workings of Atari's new computers a closely guarded secret. To him, such a decision made sense in a highly competitive market. This decision, however, was clearly a mistake in the home computer market, which had a tradition of openness and sharing. More importantly, it simply retarded the development of software for Atari computers, and in one case, so angered a brilliant programmer named John Harris, that he refused to sell Atari his state-of-the-art game "Jawbreaker."

Despite the impressive growth of the home computer market, Corporate America was slow to take seriously the fledgling industry. After all, it had not been validated by IBM. But the spiralling profits of firms like Apple and Atari were blood in the water for the corporate leviathan. Soon, a Big Blue fin began to circle the upstart firms of Silicon Valley.

When IBM finally decided to get into personal computers, they first considered buying a firm already in the market, thus leapfrogging the costly delays involved in developing a computer from scratch. The group that was put together to explore this option recommended that IBM buy out Atari.

The proposal was brought to a dead halt, however, because IBM chairman, Frank Carey, wanted only "the best," and according to the advice he was given, that meant Apple, not Atari. Since Apple was sure to resist a take-over attempt, IBM's only alternative was to bring out their own personal computer. They did so in 1981, after a development period of only a year.

It was an amazing feat for a company as elephantine as IBM. Perhaps equally remarkable was the open architecture that it employed, making it closer in spirit to the Apple II than the Atari 800. Such openness was distinctly un-IBM-like.

While the PC was under development, IBM approached Bill Gates, another computer whizkid and co-founder of Microsoft. At the time Gates was working on a version of Microsoft Basic for the Atari 400/800, and had a meeting with Ray Kassar scheduled the next day.

Hurriedly, Gates cancelled that meeting so that he could receive IBM. Before any discussion could begin, however, Gates was obliged to sign a document which pledged his secrecy on matters relating to IBM, but gave IBM free use of any secrets Gates himself might inadvertently reveal. Despite this lopsided agreement, the meeting turned out to be a very profitable one for Gates, as it ultimately led to his company's development of MS-DOS, the operating system for IBM's new PC.

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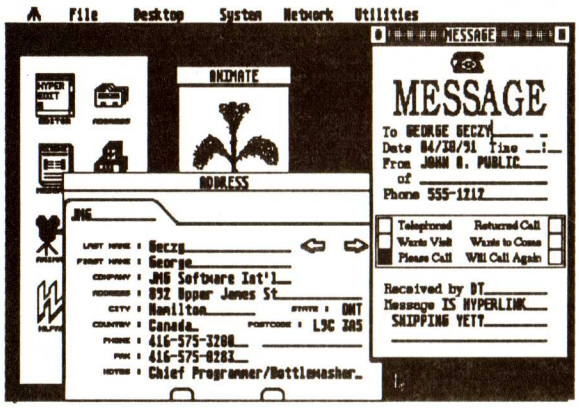

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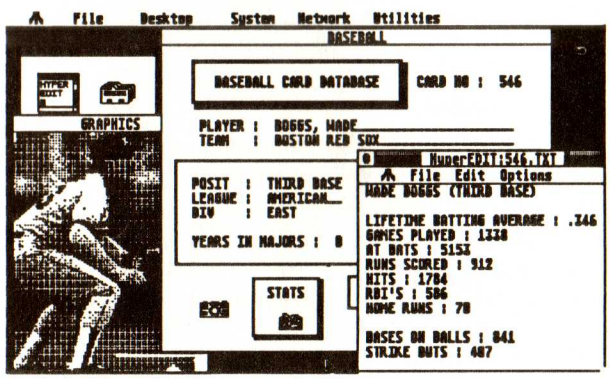

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The 1991 Glendale Show

Gary Klugman
SVACE

Once again, my commuter jet descends into the LA basin. Thoughts of LA Law, beach bunnies, the freeway system and breathing smog fill my mind. My mind clears, I am a man with a mission.

I am covering the Glendale Show for the readers of Atari Interface magazine.

This was the fifth year for the Glendale Show (a.k.a. The Southern California Atari Computer Faire). The show is promoted as the largest Atari show in the US.

It began as a co-operative effort between southern California Atari user groups. One of the first year's organizers was a user group president named Bob Brodie. Another was a C.P.A. named John King Tarpinian. John has headed up the show ever since.

This year's show had an attendance of approximately 3,300. That's about a 1/3 increase over last year. No one was quite sure why there was the increase. Speculation was that local users didn't have a World of Atari show this year, so they were show-starved. Also, advertising was handled differently.

For many people, the most exciting thing was the showing of the ST Book. The ST Book is a notebook-sized ST that can run for up to 10 hours on AA batteries. It can also be run on a rechargeable Ni-Cad battery pack. It uses a pad in the upper right corner of the keyboard instead of a mouse.

Although it must use an external floppy drive, the base unit will have an internal 40 meg hard drive. The Book has an expansion port and the usual ports including MIDI and external mouse. The base unit will have one meg of memory, and there will also be a unit with four megs of memory and an 80 meg hard drive. The base unit is expected to be priced at around $1700. The ST Book is expected to be available in limited quantities late this year.

In a seminar by Atari employees Jim Grunke (head of Atari's music/MIDI division) and Bill Rehbock (head of developer support), attendees were told Atari is also developing the STylus.

The STylus is a pen-based computer that is to begin production in 3-4 weeks. This computer recognizes the handwriting (actually printing) of its user. They felt the STylus has a market advantage over similar systems because it already has a lot of software available for it—it will use ST software. The STylus is expected to have a retail price of around $1200.

Another subject brought up in the seminar was that Atari has turned the Hotz Box development and production back to Jimmy Hotz to market himself.

The upcoming CDAR-505 CD ROM drive/compact disk player is a SCSI device. So, it will need a host adapter (like Atari's, ICD's or Supra's) for use on STs and Megas. It can also be daisy-chained from your current hard disk if you have one.

Jim and Bill said Atari couldn't be sure how many dealers in the US carry the ST now because many businesses

buy their computers from distributors. Atari is limiting sales of their TT to key retailers called AEGIS dealers. Right now there are 70 of them in the US, according to the information presented at the seminar.

Lots of ST users arrived with disks in hand to get them upgraded by the software developers at the show. Developers did a brisk business bringing people up to date, with many developers running out of upgrade disks the first day!

The crowd was especially heavy on Saturday, making it difficult to talk to vendors and dealers. You had to wait your turn in the mob, and it didn't hurt to be a little assertive. The crowd thinned some in the afternoon.

Sunday morning was a bit slow, as usual for these shows, but the crowd picked up and stayed to the end. All the Atari shows I have attended (this was the 6th) have been quiet by Sunday afternoon. I didn't see much heavy discounting (dumping excess inventory) this show. I didn't see any 8-bit things at all, except at the Best Electronics booth.

I'll try to describe a few of the new things I saw. I apologize for anything I missed. It was difficult getting around to everyone and spending the time necessary to get the information.

Rod Coleman was there showing his beta version of Sudden View. Rod is the programmer and owner of Sudden Incorporated. Sudden View is a novel new accessory text editor. It has unusual editing capabilities done easily with the mouse. It also has powerful search capabilities. It will retail for $69.95.

The CodeHeads were showing MultiDesk Deluxe for the first time in America. Unlike MultiDesk, you do not need to load all of your accessories at once. So, you save valuable memory. MultiDesk Deluxe can load an accessory, then dump it out of memory, and then reuse the memory for another accessory. They are also importing a high-end graphics tool called Avant Vector, with a very smooth user interface.

Another program not done by the CodeHeads but meeting CodeHead standards is Repro Studio. It is an image editing program complete with a high quality hand scanner.

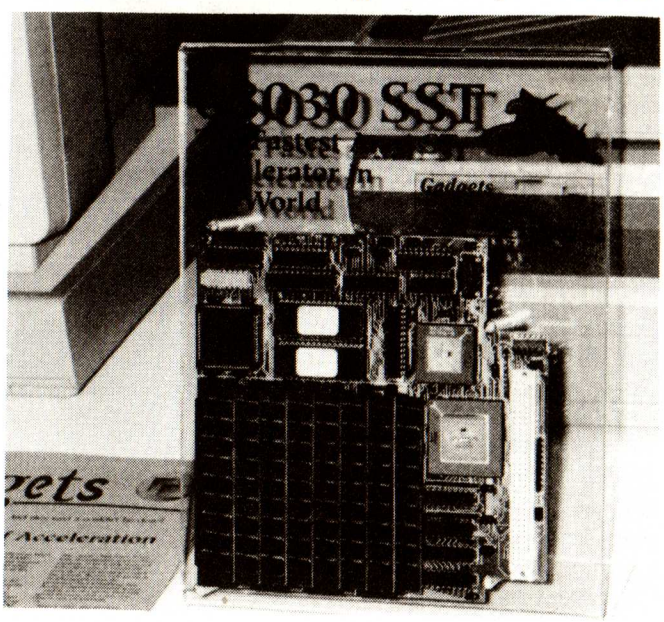
Genus is another import that is a powerful font editor. MultiDesk Deluxe retails for $49.95. Avant Vector has a two-level pricing scheme—The low end package retails for $445 and the high end is over $800. Repro Studio is $850 with the scanner or $195 without the scanner. Genus is $175 retail.

Rich Betson of Rimik Enterprises had MultiGEM Plus. The program enables the ST to multitask using the accessory slots. The $129.95 Plus version is an enhanced version of MultiGEM, with utilities to handle program watching, programming, file copying, and print viewing. The original MultiGEM without utilities will continue to be marketed for $99.95.

Michael Vederman of Double Click was showing the new DC Data Diet ($59.95 until Dec 1). The diet is a real-time data compression utility that reduces the space utilized by files on disk. It has all the thoughtfulness in the program that has become expected from the Double Click people.

Ever hit two ST keys at the same time? I do, a lot. Notice how that is less common on a PC keyboard? The reason is there is greater space between the keys on the average PC keyboard. Although he didn't have it to show, Brad Koda of Best Electronics will have key cap replacements for the ST for $49.95 that addresses this problem.

Brad did have TT Touch to improve the feel of the ST keyboard. The TT Touch gives the keyboard an im-



proved tactile feel with definite click feel so you know when you hit a key. These replacement contacts have a suggested retail of $44.95.

Gadgets by Small had their Spectre GCR, of course, but they were also showing their soon to be released 68030 SST. This board can speed up your ST to 40 MHz, maybe more, if you have the money for the chips. Base price for the board is $599 without chips. Putting a 16MHz 68030 and four 1-meg SIMMs on the board adds $460 to the price.

Application & Design Software had Universal Network. The $219 software allows networking between different two STs. The hardware cost depends on the ports used on the computer—Universal Network supports the LAN ports on the TT and Mega/STE. The hardware runs from $30-40 per node.

Formerly known as WuzTEK, Omnimon Peripherals Inc. had planned to introduce the OmniChrome board at the Glendale Show. Although it wasn't ready to show, veteran electronics engineer Norm Weinress expects it soon. The OmniChrome will give the ST user more colors and higher resolution.

Gary Klugman and Dave Plotkin (right)

There will be different levels of OmniChrome, each allowing higher resolution. With the appropriate board, the resolution will only be limited to the amount of RAM installed and the monitor being used. OmniChrome will plug into standard STs and display 256 colors out of 16 million in 640x200 resolution on a standard ST color monitor. Add a multisynch color monitor to your ST and OmniChrome will give you 256 colors in 800x600 resolution. Cost for the board is expected to start at $399.

ISD's Nathan Potechin was demonstrating Calamus SL and DynaCADD on a Mega ST equipped with Jim Allen's Turbo 030 board running at 40MHz. Calamus SL could also be seen on a TT with MATRIX color board in the Atari booth.

Hybrid Arts was showing Digital Master, a direct-to-disk sound recording and manipulation package geared toward small to mid-size TV and radio stations and recording studios. Price was slightly under $4,000.

Rio Computers was showing off the new Lexicor software products. Lee Seiler of Lexicor was onhand to demonstrate Chronos-3D and Prism Paint. Rio was also selling a Genlock for the ST, Supercharger IBM emulators and a VGA card for Supercharger for $499.

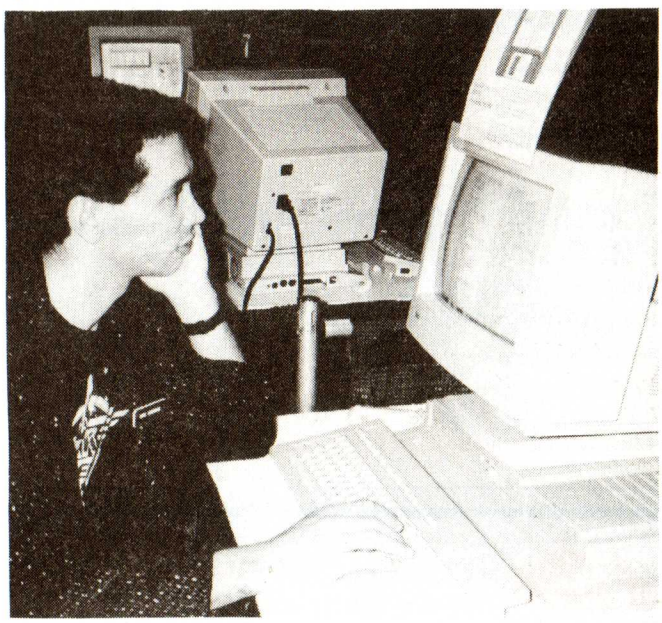
Quick ST 3 was available at the Branch Always booth and was selling well. In fact, Darek Mihocka sold out of his original batch and had to make more on the spot.

Unfortunately, the disks duplicated at the show report that they were infected with a "SIGNUM BPL" virus and some of the files on the disk were damaged. If you received one of these disks, contact Branch Always and they'll get you a replacement. Darek was also showing a TT version of his Xformer 8-bit emulator, running at full 8-bit speed.

Gribnif sold out of Stalker 3, an excellent terminal program that supports full background processing and multiple online sessions. Gribnif was also showing Arabesque, an imported drawing program that handles vector graphics and bitmaps.

With a turnout larger than last year, the show was a big success. Developers and vendors were pleased with sales. The fact that there wasn't the heavy discounting seen in other shows signaled a possible end to the shake-out of third party developers. Developers now are either making enough money with Atari computers or they have sources of income elsewhere in addition to their Atari income.

The increased attendance is an indication that there are still a lot of Atari users out there interested in expanding the utility of their ST computers, being more productive and adding more power to their ST computers.



Michael Vederman of Double Click

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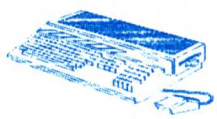

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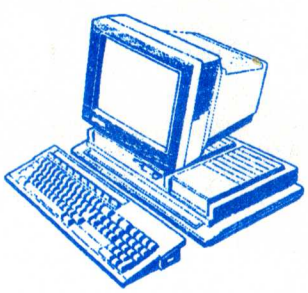

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EdHak 2.24

Bill Rayl

This review is long overdue. I've been an avid user of EdHak for nearly two years, and I'm finally getting around to writing a review of it. Why has it taken so long? The reason is simple—I've come to depend upon EdHak and use it as an integral part of what I do with my ST. EdHak seems like it's almost a part of my computer, so much so that I never thought about reviewing it. The concept of reviewing EdHak was about as far from my mind as reviewing the internal disk drive or the SM124 monochrome monitor.

I recently received version 2.24 of EdHak, and that is what prompted me to finally sit down in front of the ST and write this review. In beginning this article, I realized that not everyone may know what EdHak is. That was also a strange notion to me, since I've come to depend on EdHak for all my file editing needs. After all, everyone should be using this product, so everyone should already know about it. Right?

Well, everyone *should* be using EdHak. It's a great little editor that can be used either as a desk accessory or stand-alone program. Even better, EdHak can handle the toughest editing jobs with ease. You can edit text files, your ST's memory, disk sectors...just about everything!

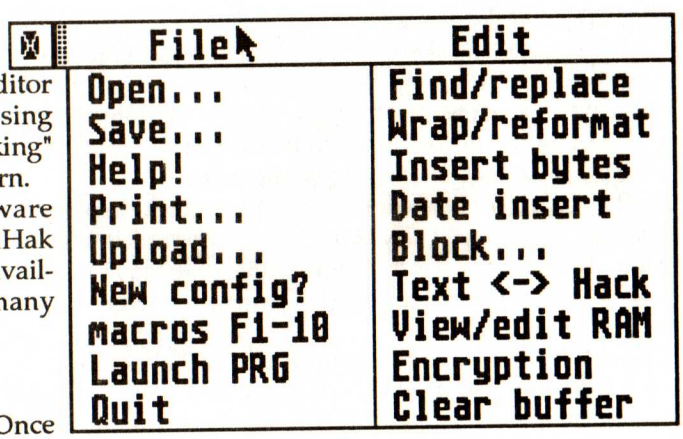
When I need to edit anything, I use EdHak. I haven't used a word processor on my ST for months. All the articles I've written for Atari Interface in the past year have been created in EdHak. I also use EdHak to format information for importation into databases (I do a lot of database manipulation). Occassionally, when I have the misfortune of trashing a disk directory or inadvertantly deleting a file from disk, EdHak comes to the rescue.

EdHak is probably the best bargain in the ST/TT market.

Past and Present

EdHak started its life as a shareware program called Diary. Craig Harvey, the program's author and president of Clear Thinking, was dissatisfied with the text editor accessories available for the ST. So, being an enterprising guy, he wrote Diary. Later, Craig added memory "hacking" features, and EdHak (the editor/hacking utility) was born.

Diary and EdHak have won a number of shareware awards in the past couple of years. As of version 2.2, EdHak has gone commercial only, although a demo version is available from Clear Thinking or most online services and many BBS systems. Currently, EdHak is at version 2.24.



Ease of Use

EdHak is as easy to use as a text editor should be. Once up and running, you can simply start typing away. The title bar at the top of the EdHak editing window shows you the name of the file you are editing, as well as the current line number and cursor/character position in that line. At the far right side of the title bar is a sizing button. Clicking on this button toggles the display between full and half screen modes. A close button at the far left will exit you to the desktop.

Next to the close button, the word "Menu" appears in the title bar. If you place the mouse cursor over this Menu entry, a double wide GEM drop down menu appears. From this menu, you can select many of EdHak's powerful functions, like Search and Replace, Uploading of text via the modem, file Encryption, and even running other programs from within EdHak.

A scroll bar at the right side of the edit window allows you to scroll through your text file, or you can use the up and down cursor keys. Pressing either Shift key in conjuction with the up and down cursor keys allows you to move back or forward one page at a time.

While the EdHak manual fully explains all the features of the program and how to use them, EdHak has a built-in help feature for quick reference. To access the help menus, simply press the Help key (or select Help! from the Menu). These help menus list all the keyboard equivalents for all of EdHak's functions.

Insert Anything

One of EdHak's most powerful features is its ability to edit just about anything. In keeping with that flexibility, the program allows you to insert any character—not just the standard ASCII characters—by entering them as text or via their decimal or hexidecimal values.

EdHak's search and replace options take this even one step further, allowing you to search and replace using text strings or decimal/hexidecimal values. And, you can do this independently for each string.

For instance, say you have a text file created on an Atari Classic (8-bit) and the carriage returns all show up as a cent sign when you load the file in. That's because the ATASCII carriage return has a decimal value of 155, the value for the cent sign in the ST's ASCII character set. To replace these ATASCII carriage returns with ASCII carriage return/line feed sequences, you can search for decimal 155 characters and replace them with Control-M (carriage return) and Control-J (line feed) text sequences.

Blocking Made Easy

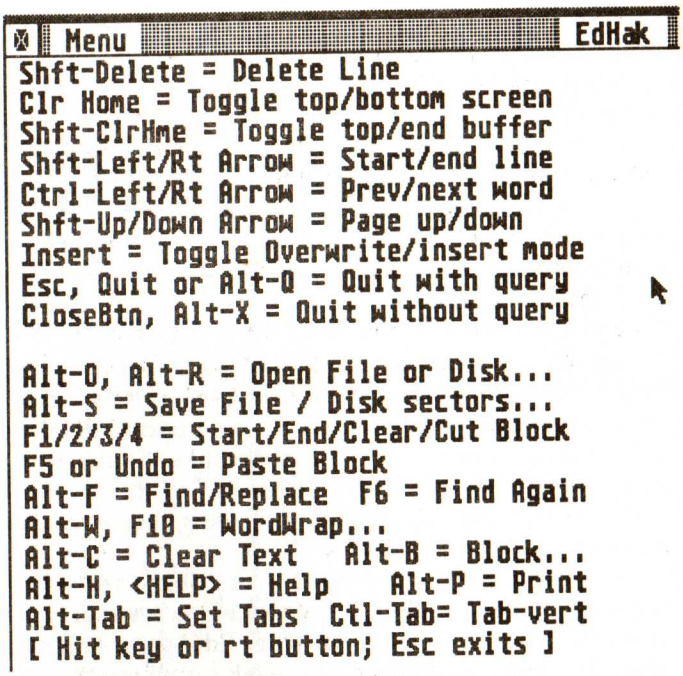
Selecting text blocks in EdHak is a breeze. You can simply use the mouse to select blocks. Just place the mouse cursor at the start of the text to be selected, press and hold the left mouse button and drag the mouse to the end of the area to be blocked.

If the end of the text block is off the current display, EdHak will automatically scroll when the mouse cursor reaches the top or bottom of the display. Once you're done with the selection, simply release the mouse button.

As an alternative to the mouse, you can press F1 to start a block and F2 to end, while F3 clears the block and F4 deletes the selected block. Users of the Flash! telecommunications program will recognize this as the same way the Flash! editor works. As with Flash!, pressing the Undo key will restore the last deleted block. Using F4 and Undo is a quick way to do block cut and paste. Block cut, paste and save are also available by selecting the Block option in the drop down Menu. You can even print a selected block.

Other Features

EdHak also handles word wrapping. You can set the right margin, and many other options, by selecting the New config? entry from the Menu (or by pressing Alt-N). Then, by selecting the Wrap/reformat entry or pressing Alt-W, you have the option of reformatting the entire text buffer, the current paragraph or a selected block of text. You can also turn word wrap off.



You can edit files of *any* size with EdHak; the only limitation is the size of your storage medium. EdHak allows you to define its buffer size from 4K up to 97K. If an edited file is larger than the buffer, EdHak allows you to edit the file section by section. So, you can even edit files that are larger than the system memory, something no word processor on the ST market that I know of will allow you to do.

When you reach the bottom of the current buffer, EdHak will automatically load in the next section of the file. If you have made any editing changes, you will be asked if you wished to save them before continuing. You have the option of saving only the current buffer or saving the buffer back to the complete file.

For the security conscious, EdHak offers full encryption of your files. You supply the password used for the encryption/decryption. If you use this option, make sure you don't forget the password, or you will lose your files forever. (It's a good idea to keep an unencrypted version of the files somewhere, just in case you do forget.)

EdHak offers a pile of other features, but I think you get the idea. This is one heck of an editor!

Safe Sectors

One use for EdHak that many people may not even think of is to help protect you from damage to floppy disks. If you're like me, you have a "library" (however loosely organized) of software, graphics, etc. stored on floppy disk. While I hardly ever make modifications to these disks, I do copy files off them from time to time.

How can EdHak protect these floppies from damage? Well, EdHak isn't just a file/text editor. It can also edit disk sectors. Nearly every ST user at one time or another has "trashed" a floppy disk. What usually happens is that the sector on disk that holds the directory or FAT (file allocation table) gets messed up.

Using EdHak, you can save the first few sectors of each floppy to a file—one for each disk in your collection. This gives you a safe backup of the boot sectors, FAT tables and directories for your floppies. Every time you update a floppy, simply make a new backup file for that disk and you're pretty safe! This can also help you out if your disk library ever gets infected by a boot sector virus.

QuikSend

As mentioned earlier, EdHak can be used as either a desk accessory or as a program simply by renaming it with the proper file extension. As a desk accessory, EdHak offers a number of very nice uses. For instance, version 2.2 and above have a "Quiksend" feature. This features allows you to send a marked block of text to an open window of another program.

This is a great feature, especially for PageStream users. You can have a PageStream document open with a text frame just waiting for text. Rather than typing the text directly into PageStream—a process that can be rather slow—you can use the full editing capabilities of EdHak. Once your text has been created, simply select it as a block, hit Alt-K and watch as EdHak places the text into your PageStream document! It's like having a built-in word processor in PageStream.

Interfacing

Users of the CompuServe online service may also find the combination of EdHak and QuickCIS a useful addition to their libraries. QuickCIS is an online navigator for CompuServe written by Jim Ness. The program allows you to respond to messages and select file for download while offline. Once you've created your responses, etc., QuickCIS calls CompuServe for you and posts your replies. This can be a real money saver.

As of version 2.24, EdHak can be used in conjunction with QuickCIS, giving QuickCIS a much needed full-featured text editor for message creation. QuickCIS is available for download in the ATARIPRO Forum on CompuServe.

Wrap Up

Now that you know what EdHak is and some of the great things it can do, you'll probably be surprised to hear that the program retails for only $18.95 and upgrades are only $5! A super program at a super price. EdHak is probably *the* best bargain in the ST/TT market. And you get full support for Moniterm monitors and all ST and TT resolutions, as well.

So, what are you waiting for?...buy EdHak now. You'll be glad you did.

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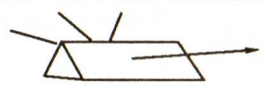

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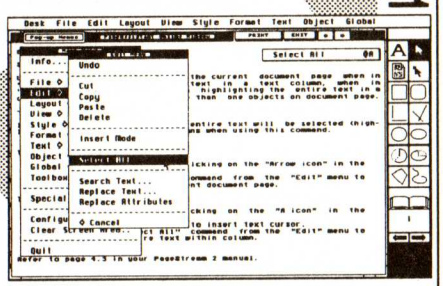

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Sex, Lies and Graphics/Video

(but without any sex or many lies)

Jay Craswell
Contributing Editor

Character vs Graphics Modes

This is a pretty straightforward topic. Text on some machines is extremely fast. IBM machines have a character generator that lets you "squirt" (technical term, grin) whole characters onto the screen with very little effort (or time!). The Macintosh, on the other hand, is more flexible with the characters it can squirt and, in effect, makes the CPU do all of the work displaying text...slow! Both systems alone have severe shortcomings.

Atari, in its infinite wisdom, has the Blitter that works like a character mode display but allows you to select the fonts (via software) to be squirted on the screen. Even better, you can do the same sorts of things into printer RAM! More about the printer stuff in a later article.

Scalable Fonts

Most of us have heard about scalable fonts. What they are is rather simple. The idea is to have a program take the outline of a single font, such as Times Roman, and generate that same font in different sizes—scale (or resize) a font from 72 point down to 6, for example.

The problem is that the technology to do this in the laser printer is slow and the work done on the screen font is awful! The problem is that laser printers are 300 DPI (at least) and your standard computer monitor is around 75 DPI. This difference shows up as pretty printed text and jagged, boxy-looking screen fonts.

In the Mac world, as mentioned in my previous month's column, you have 72 DPI at all times or Apple users shun you like a plague. Somewhere it is written that Mac fonts are to be 72 DPI or you will roast in hell! The real reason for all the excitement is that Apple pretty much locked themselves into that setup by not having a way to deal with any other DPI.

Many people see this problem as insoluble until screens capable of 300 DPI display are made. While such screens are possible, they are slow to paint to and are very "bleeding edge."

There are scalable screen fonts, of course. Can you say "Display Postscript?" But, Display Postscript is expensive and not all that fast. Worst of all, it still has the jaggies!

A possible solution to these screen fonts with jaggies is to employ a technology known as anti-aliasing. Simply put, you apply gray scales to the characters. Many of you may be shaking your heads thinking that a character on a page is black and white with no shades. Think of it this way: which document looks better on your screen, one scanned in with a B&W hand scanner or one with an HP or Canon flatbed, gray scale scanner?

While working at Image Systems, we presented a state-of-the-art monitor running almost 300 DPI. In the same booth we had a 72 DPI screen showing text with 16 grays (it was scanned in). All of the people that saw the two thought the 72 DPI screen was our "near 300 DPI" monitor.

I guess it's safe to say that gray scale information can indeed give the appearance of higher DPI. And remember that, in the world of displays, it's the appearance alone that is important!

This wasn't the first time that I experienced this illusion of added DPI via gray scales. As a junior bottle washer at CPT Corporation (defunct now, I think) we worked on some pretty fancy gear. One project had us playing with a 1024x768 high resolution graphics controller that allowed 16 gray scales. The idea of a scalable screen font was the goal, and to that end, work was done to create the smallest possible font.

Face it, a 1x1 font is unreadable no matter how many gray scales you use.

But, would you believe that a 2x2 font was recognizable? True...and with only four measly bits in the character cell! The alphabet was drawn on the screen with handcrafted characters using 16 shades of gray. One after the other, we asked people if they recognized the line of text. To a person, everyone correctly identified it as the alphabet.

This caused a *lot* of head scratching. Maybe it was outright disbelief that it worked or maybe the effort needed to scale these types of fonts was too much. Either way, the project was shelved.

Today, there is one IBM company that has a simple version of gray scale fonts for Ventura Publisher now. They look loads better than the black and white fonts. Too bad the card they use draws *so slow*. Thank the wonderful world of paging and segments for all this "speed."

Now I wonder what Atari developer will finish this project? I imagine a certain 1024x768 graphics screen with gray scalable screen fonts might even make some Mac, IBM and Amiga publishing and wordprocessing users sit up and take notice.

VGA Chip Sets

Questions about "VGA" are easily one of the most often asked. These are either "Why don't you sell your card for $250 like the 'fill in the blank' IBM VGA card company from Walla Walla, Washington?" or "I bet I could get a VGA chip that would replace your ISAC for 1/2 the cost."

First, the comparison between ISAC, ALBERT and VGA is unfair. Most VGA cards are interlaced. Almost all of us have seen an Amiga blinking away to beat the band. Interlaced video is just awful unless you are exporting it to video tape, and for that you need to be able to do low resolution 524x524. Interlaced display is good for making a slower monitor display higher resolutions without actually having to run at a higher speed.

Nowadays, most PC dealers don't even show demos in the interlaced mode. It turns off the clients (or makes them seasick). However, when you ask them for high resolution, most will show you Windows (*or some other thing*) running in 800 x 600. At least in this mode the display is noninterlaced.

Now, I'm not saying that there aren't non-interlaced 1024x768 cards out there. Indeed, there are! And, if you look in a recent Byte, you will see an article on one priced at $599.

Say, isn't that the same sale price as ISAC? Yes, of course it is.

Before I get a rash of calls from people with some VGA card that *can* be forced to run non-interlaced and is cheaper, let me say this. There is a reason for this—volume price. Do you know how much money has been spent to cost reduce your typical VGA card? Most of them are not much more than a single chip with some RAM and a crystal.

So, why don't I make a VGA Chip? Money, folks. It's what makes the world go round, and you need great big bags of it to make a fancy custom ASIC. The masses scream "Why don't you buy a VGA chip from Western Digital or whoever?" Ladies and gents, I would if I could make it work. VGA is a weird mother.

Yes, I could easily stuff one on a card and might even get it to light up and draw some pretty pictures and run some canned demos. But get the Atari OS to work with it? Draw the Desktop? Run VDI? No way! Not without rewriting most of the graphics system, VDI, etc.

The KAOS people over in Germany might have been able to rewrite much of the TOS 1.4 ROM in assembly, but even that is not the same as replacing it with functionally equivalent code for a different type display screen that works.

Hiring a staff of programmers to work for years is unacceptable to me and, to be honest, I believe the results would be unacceptable to the software developers. Believe me, it's hard enough with a similar screen map and a simple driver to get everything just right.

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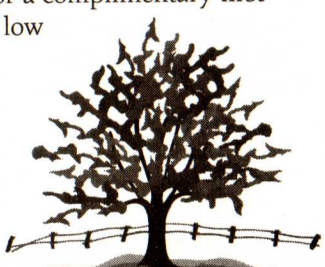

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So You Want to Start a User Group? Part III
A Primer for Starting Your Own User Group

Tim Holt
Contributing Editor

Last time, we looked at how you go about getting and keeping members in your group. Remember, getting members is easy, *keeping* them is the hard part.

Okay, so you got a group of people, some you know, some you don't. What do you *do* with them? This time, we will look at ways to make the actual meetings an interesting and educational opportunity for you and your members.

How to Keep it Fresh!

First of all, you hopefully have chosen a meeting place that can accommodate a few computers. Ask members to bring their systems (that's right the entire system) to the meeting. I know, it is a real pain in the tush to rip out your system and bring it to a meeting. (This is one area where Macintosh has us beat.) However, the more computers you have at a meeting, the better it will be for everyone.

Trust me. Think about a meeting of 25 people. Now, think about those same 25 people all trying to look at your *one* 13 inch monitor. Get the idea?

Now imagine those same 25 spread out over seven or eight monitors and computers. Believe me, Billy Bob in the back row is gonna get bored *real* fast trying to see *one* computer way up at the front.

Okay, you have a bunch of computers, and they are all humming away at the meeting. Now what? Well, most members expect a demonstration of some kind. What kind of demonstration? Remember how I said in a previous article that most people plop down the membership fee and expect a song and dance? Well, get out your tap shoes....

This is where you can let your imagination run wild. You can demo *anything*. Games, utilities, accessories, hardware, software, modems...you name it, you can demo it. Chances are, there is a game on your shelf collecting dust that *no one* in the group has ever seen before. (Can you say Harmony by Accolade? Sure, I knew you could.) Make a demonstration of it!

Themes

At ACCEPT, we like meetings that have a *theme*, like "Word Processors." If you chose to do this, invite several folks to bring the word processor they are most familiar with, set the computers up side by side and demo away!

Here are a few examples of *themes* that we have had at our meetings. (Feel free to steal, as we stole these from other groups...)

Word Processing—Compare several programs, such as WordPerfect, WordWriter, WordUp and ST Writer Elite, etc. Actually, you could probably give a demo on each one of these, so that is 5 meetings worth of demos.

Games—Everyone has a favorite game, or as the Messy-DOS people call it, Entertainment Software. You could even break this down into sub-themes such as Arcade or Fantasy/Role Playing. Again, several demos going at once is better than one at a time, so folks can stroll behind the users and get a nice view of what is going on.

Desktop Publishing—Timeworks, Calamus or Pagestream all could easily take up an entire afternoon or evening's meeting. However, running them side-by-side, and showing the output of each is a tremendous selling point.

And, these types of demos are essentially someone trying to convince someone else that this program or that hardware is so good that they just cannot live without them. Again, if you just have one computer per meeting, you have three meetings worth of demos in just this one theme.

Telecommunications—Compare all

the different modem programs. If the club has a BBS, get the Sysop to demo how to use the system to its best advantage. (Don't try this in a room without a phone jack. The results are pretty sad.)

Best of Public Domain—This is where the club librarian comes to do his or her thing. Let the librarian show the club a small selection of the finest things in the club's library. Here the choices are unlimited.

Don't think there is a lot of PD stuff out there? Before American Express started wanting me to actually *pay* them for using GEnie, I counted over 17,000 files in the Atari ST area alone. Who knows what it's up to now. Many of the PD and Shareware programs can be used with the other themes as well, such as Vanterm for the Telecommunications theme.

Art—How do all those art and paint programs work? Drag out your old copy of NeoChrome, and boot it up. Demo it against Spectrum, Prism Paint, etc. See what happens when you load up a nice picture of Christie Brinkley and start drawing a 5 o'clock shadow on her...give her some chest hair, and make her bald at the same time. This is always a crowd pleaser.

Macintosh Emulation—Someone in the club has to have a Spectre GCR cartridge from Gadgets by Small. These little beauties are the most fun you can have without laughing. Invite your hardened "Mac-friends" to your "Mac" meeting. Watch their faces as they watch your Atari ST "game machines" boot up with a Mac logo, and have it say "Welcome to Macintosh." I almost guarantee that at least one club member will run out and buy a Spectre GCR after coming to this meeting.

MS-DOS Emulation—PC Ditto, Ditto II, PC Speed, AT Speed, AT Once—they all work well, and they all work on your ST. Demonstrate how someone who uses an IBM at work can come home at night and crank up the old ST to do the same things. Have speed comparisons, show some games.

Miscellaneous Themes—Any of the themes that you used for the ST can also be used as sub-themes for the Macintosh and IBM emulators. Actually compare prices of IBM, Mac and ST software, and show the members what is the best buy. MIDI/Music, Accessories and Utilities all are fair game for demos. Just remember, *anything* in a computer store can be demonstrated.

Other Observations

Okay, you now have before you about a year's worth of meetings planned. Pretty easy, eh? Well, it is to a point. You do not want to get on a teacher/pupil relationship with your members. They probably know just as much as you do, they just don't speak in public. This is a condition called "Groupus Interruptus," and is common in all user groups.

Don't expect each meeting to be perfect. Sometimes, you will have ten people in front of you, and the demos go just as you planned. At other times, fifty people will be watching as your hard drive refuses to boot, or you can't get the paper into your printer. Hey, it happens to all of us, and it isn't any big deal. If your demo screws up, it screws up. If anyone complains (which they won't), tell *them* to get up front and do a demo. This usually shuts them up pretty fast.

The key to successful demonstrations is finding out who in your group knows what. Is that quiet kid in the back able to destroy every living thing in the known and unknown galaxy? Well, he would make a great demonstrator of any new game. And, usually, people don't mind demonstrating something they know really well.

Don't ask Billy, who has never seen the actual keyboard, to demo a word processor. On the other hand, don't ask Rev. Smith to demo converting Xrated GIF pictures to the ST format. Know your group.

And don't limit yourselves to just ST-related shows. Do a demo of basic computer repair. Any computer user can relate to that. Have a meeting where the police come in and give a talk about anti-theft devices used in the home to prevent theft of computers.

See how it goes? You could probably think of all sorts of exciting demonstrations I haven't even mentioned. This time, we talked about how to give successful demonstrations. Next time, we will talk about special interest SIGs and some common problems faced by user groups.

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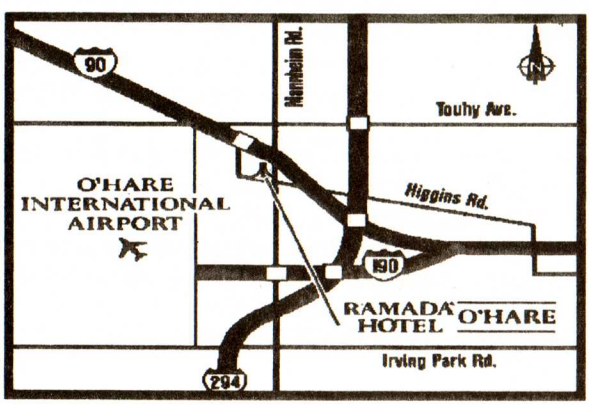

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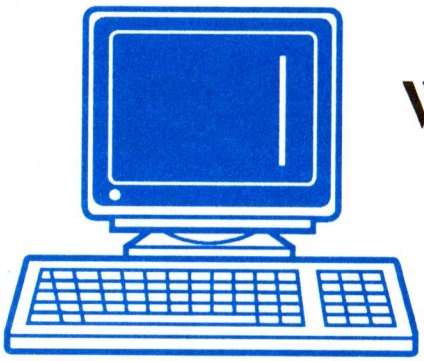

What Does the Future Hold

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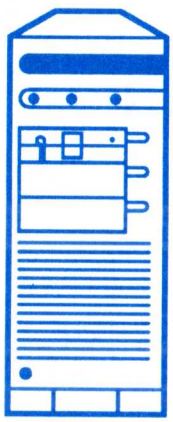


Over the past several months, a number of people, including myself, have been kicking around what we Atari Classic (aka 8-bit) users would like to see in a new machine. What we have determined is that there are two distinct directions people would like to see their system develop into.

One faction would like to see a high-power application computer which would sacrifice compatibility to gain more performance. The other group would like to see a high-compatibility system which would allow use of the lower cost IBM/PC type peripherals.

While these machines would probably be marketed by DataQue Products, they will most likely not be considered as part of the DataQue line. This is primarily because the anticipated volume is not high enough to justify the overhead.

System #1: 1600XLE

The high-performance system has been named the 1600XLE to indicate that it is not only the ultimate machine (indicated by a numeric prefix which is higher than any previous model), but does mantain some degree of compatibility with the XL (the 'E' indicating enhanced). At this time, the following specifications have been formulated.

System CPU: 8MHz CMOS WD65-SC816P8 Processor. This CPU is similar to the Turbo-816 upgrade and Apple //GS, except it is running at a no-wait-state 8MHz. While this clock rate in itself is not particularly blazing compared to most modern async processors, you have to keep in mind it is a synchronous CPU and that its bus cycle is only one system clock. This is as opposed to the 68000 and 8088, which take up to four system clocks per bus cycle. To give you a relative index of the 65816 compared to the 68000 (as used in the ST) or the 8088 (as used in the PC/XT) see the chart at the bottom of the next page.

As you can see, the 65816 is significantly faster than either competitor. For example, an 8MHz 65816 executing an add with carry (word) instruction with a source address which is absolute indexed would take 625nS, while the 8088 would have to be running at 22.4MHz to take the same time period.

The 68000 in that example would have to be running at 28.8MHz for an equivalent execution time. Now you have some insight as to why the ST could not emulate the 8-bit very well.

Of course, each processor has its features and pitfalls. The 65816 lacks multiply and divide instructions, for example. The 8088 has a memory address limit which is only one megabyte while the other two are 16Mb. The 68000 is very slow when working with bytes (which is why most of the examples above were operating on words).

Speed is not the only reason for choosing the 65816, it also has a 6502 compatibility mode, which will allow it to execute the instructions of the 6502. Of course, the 6502 is the CPU which is used in all of the 8-bit Atari systems (including the 400/800/XL/XE/XEGS).

System DRAM

Since the 65816 can address up to 16Mb (actually it can address 32Mb, but I don't wanna give away too many secrets here), it was determined that there should be an easily expanded memory system.

Because of their low cost and availability, SIMM memory modules would be the first choice. These are currently available at well under $50 for the 1Mb

For the Atari 8-bit User?

Chuck Steinman
MAUG

version. Since the 6502 memory cycle is 1/4th the period of the 8088 or 68000, RAM interlacing will be required, so the SIMMs will have to be added in pairs. This is because DRAMs with access times under 60nS would otherwise be required, which are much more expensive than the 120nS versions which interlacing will allow.

The current plan is to allow for two pairs of modules, which would allow for 4Mb of DRAM in the system using 1Mb modules. Since the sockets will be wired to support 4Mb modules, a maximum of 14Mb of system RAM can be used (first and last meg reserved).

System SRAM

To allow for a low entry cost, the system area located in the lowest 64K of the memory map will use static RAM. This will be configured similar to the XE in that there will be a 16Kb window located at $4000 which several banks of RAM can be paged into using PortB of the PIA. While it will support the XE CPU mode, there are no plans at this time to support the ANTIC modes, since no ANTIC will be on the motherboard.

System ROM: The system will feature a custom operating system in ROM which is entry point compatible with the Atari XL/XE OS. There will be enhancements to this OS, mainly to support the additional peripherals and take advantage of the 65816 enhanced instructions. The OS will also feature debugging, diagnostics and configuration utilities. This OS does not support the international character set or cassette.

Applications

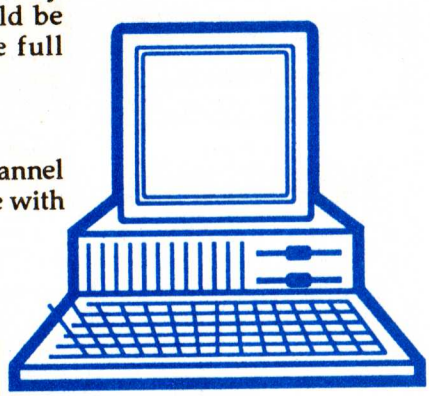
At this time, there are no plans to include any application programs in ROM with the system. This may change if DataQue acquires rights to some of the OSS/ICD products. The XL/XE's normally have BASIC in this area. Two 28-pin IC sockets will be left for this use, with a jumper to select either one 8K or two 4K ROMs. This would allow you to dismantle your favorite application cartridge and insert its ROMs into the provided sockets.

ROM Expansion

One XL/XE compatible cartridge slot will be provided. This will allow existing applications to run in the compatibility mode. Since most of these applications were written in 6502 language, they would only be able to directly access the XE memory. Memory managers such as RAMDisk drivers would allow such programs to use any expanded memory (over 1Mb). Again, if OSS/ICD products are obtained (or any others for that matter), they could be converted to directly access the full 14Mb of RAM.

SIO Devices

There will be one Serial I/O channel provided which will be compatible with



Operation	65816	8088	68000
Load register immediate byte	2	4	8
Load register immediate word	3	8	8
Load register absolute word	5	14	12
Add w/Carry absolute,index word	5	14	18
Sub w/Borrow indirect indexed word	6	16	18
Branch short relative (false/true)	2/3	4/16	10
Jump to new absolute address	3	15	10
Jump to subroutine, and return	12	27	34

most Atari SIO peripherals. The SIO port would allow Atari devices such as floppy drives, printers and interfaces to be used without modification.

Keyboard

An IBM 101-key-type keyboard would be supported using the standard PC 5-pin DIN type connector. Special function keys on the Atari would be mapped onto function keys, and other features of the enhanced keyboards would be supported where possible, as in the TransKey adapter.

Other Ports

One RS-232 serial port would be built onto the motherboard for serial communications. The baud rate would be fully programmable with a maximum rate of at least 19,200, possibly higher. This would terminate into a standard DB-25M connector to provide maximum compatibility. A driver would be provided in the OS ROM.

One parallel printer port would be built onto the motherboard for use with standard parallel printers. This would be terminated into a standard DB-25F connector to provide maximum compatibility. A driver would be provided in the system OS ROM.

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Two Atari compatible joystick/paddle ports would be provided, which would be terminated into two standard DB-9M connectors.

Expansion

Eight standard IBM/PC-XT type 62-pin card edge connectors would be provided for system expansion. This will allow many low-cost, readily available PC cards to be used with the system. Software drivers for popular cards would be provided in the OS ROM, such as those for CGA and MGA video cards. OS ROM extension headers will be scanned for in the $010000-$0FFFFF range.

Some of the cards which could be supported by the 1600XLE are:

- MGA Video (Monochrome, with support in the OS ROM)
- CGA Video (Color, with support in the OS ROM)
- EGA Video (Enhanced Color, support ROM on card)
- VGA Video (Analog Color, support ROM on card)
- Floppy Drives (5.25" and 3.5" supported in the OS ROM)
- Hard Drives (support ROM on card)
- Serial/Modem (support in OS ROM)
- Parallel (support in OS ROM)
- Scanner/Barcode (support ROM on card, or software driver)
- Mouse/TrackBall (supported with software driver)
- Sound and/or MIDI (support ROM on card, or software)

Since there is a wide range of applications and needs requiring different video outputs, no video hardware will be provided on the motherboard. If there was a significant demand for an XL/XE compatible video output, such an expansion card could be made. Because ANTIC and GTIA must be clocked at 1.79MHz, wait states would be required and CPU halts inserted as needed. In other words, you would sacrifice a great deal of performance for this compatibility (the single most limiting factor of the 8-bit design...it is closely linked to the video).

On the other hand, I feel output into VGA with resolutions above 640x400 with 256 colors (not to mention text output at, or above, 80 columns by 25 rows) is worth giving up the only real special feature the ANTIC offers...display lists. While they are neat for games, they are not that significant in application programming, which this machine is primarily designed for (not to say that some real mean graphic games couldn't be written).

Keep in mind the CPU has a throughput which is over 4-1/2 times faster than the 8-bit (not counting that 16-bit transfers only take one extra cycle), and several times that of the basic 8MHz ST (which also handles all the graphics overhead).

Enclosure

To lessen my workload, and to give people a variety, the motherboard would be constructed to what is called the 'Baby-AT' platform. This is the most popular board in the PC world, and there are hundreds of case styles to choose from. There are desktop, mini-AT, mini-towers and full floor-standing towers. These all provide at least two drive bays—most provide four, and some can hold as many as eight drives.

Since PC-type floppy and hard drive controllers can be used, inexpensive storage options would finally be available. This eliminates the need for host adapters such as the ICD MIO or CSS BB which have to work within the very restrictive (not to mention slow) PBI handler/interface.

Also, standard PC-type power supplies can be used. This lets you power all of the internal components from a single, fan-cooled supply. Some of the cases currently on the market have integrated power supplies.

Estimated cost is $249.95.

Because this is only a preliminary specification, the cost is only a ball-park figure for the motherboard with no DRAM included. The number of boards which are initially made will greatly determine the cost. There are significant NRE costs associated with the PC board, which will be divided by the number of initial boards. The above estimated price reflects a cost based on 10-12 boards being made initially (that may sound low, but I will only make enough initial boards to cover orders that have deposits...more details on this later).

System #2: 130XEC

For those people who may already have an IBM/PC and would like to still use their Atari 8-bit software and peripherals, the 130XEC is the answer. This system will plug into one of the PC expansion slots and, by using software drivers, use the PC peripherals (in addition to any 8-bit Atari peripherals attached).

One possible twist of this system is that if you have a VGA monitor on your system (with a text mode of 80x48 minimum) and a 16-bit processor (80286 or above), you could actually have four of these cards installed and run four different 8-bit applications on the screen at one time! Of course, there would be some details to work out, but it would be very possible.

One potential conflict is addressing this card into the PC memory map. Most systems have more than enough free memory space to fit in a 64K block with no problems. Other systems which have LAN or other non-standard I/O cards may not have a 64K block free. If the 130XEC were chopped up into smaller blocks, performance would be degraded significantly. I would be interested in knowing what the memory map is of anyone who is interested in this system.

To gain full compatibility, it may be necessary to have a monitor which provides a composite input in addition to the normal PC TTL or Analog input. This may not be the case when the final specification is made, as it depends on how well the PC does at emulating the ANTIC display list when the video is re-directed to the PC's monitor. If it can handle it well (which I expect it will) any decent monitor/computer combination should work. This will be addressed in the final specification document.

System CPU

NMOS 6502 running at 1.79MHz to maintain compatibility with current software and hardware. Using proprietary interface techniques, the CPU will run faster than a normal XL/XE at the same clock rate.

System RAM and ROM

128K of RAM will be used, which can be banked into a 16K window at $4000, using the PortB PIA (as in the Atari 130XE CPU control mode). 16K of ROM, entry point compatible with the Atari XL/XE operating system ROM (does not support international character set or cassette) will be included.

Expansion can be done through:

One XL/XE compatible ROM cartridge port (30-pin Card Edge)
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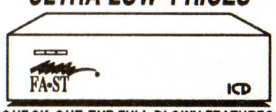

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Estimated cost is $149.95. Because this is only a preliminary specification, the cost is only a ball-park figure for the card with none of the custom chips included. The number of boards which are initially made will greatly determine the cost, as in the above 1600XLE.

More Information?

These systems are both currently just in the prototyping stages. All specifications are subject to change. A current target date for completion of prototypes has been set for January 1, 1992, which is also subject to change. If sufficient interest is not shown, either or both projects may be cancelled at any time.

Once the prototypes are done, if there is sufficient demand, I will release a final specification document with costs. There will be a cut-off date assigned for initial orders, with a 25% down payment required to enter an order. Once the order period has expired, the boards will be ordered from the PC board house, and should be back within 30 days. Once boards are built up, those with pending orders will be notified and units shipped when the remaining balance is paid (or by COD).

Since a store selling PC components—both retail and wholesale—has recently been purchased by the owners of DataQue, such components will be offered for those who do not have a local source. Package deals will also be offered. Details will be made available when final specifications are released.

If you are interested in one or both of these projects, please send a #10 (large) self-addressed, stamped envelope with your thoughts and interest level. When a final specification and cost is determined, those who sent a SASE will be notified. Letters should be sent to DataQue Products, Enhanced Products Dept., Post Office Box 134, Ontario, OH 44862-0134, USA.

While I will respond to email from GEnie, Delphi and Compuserve online, I will not forward information by US mail from such contacts.

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AAAUA Presidential Ponderings

It has been said that the only thing that remains the same is CHANGE. That certainly applies to computer technology and consumer demand. It's interesting that the latter is more what people THINK they need or want than what they ACTUALLY need or want. Why is that? It's called marketing. Else, how can you explain Nintendo, Teenage Mutant Ninja Turtles and Bart Simpson!

In the computer world, new developments and better (different?) software entice the consumer. Advertisers do their best to convince the public that they just HAVE TO HAVE this NEW and IMPROVED "whatever." Many who respond to this psychological pressure do so for reasons other than "need." Frequently, it is just plain "keeping up with the Jones." Or, it could be an insatiable desire for the latest "gadget." Yes, I am guilty too. And I suppose it isn't all bad. Otherwise, technology would lose a lot of its impetus. But, how does this relate to user groups?

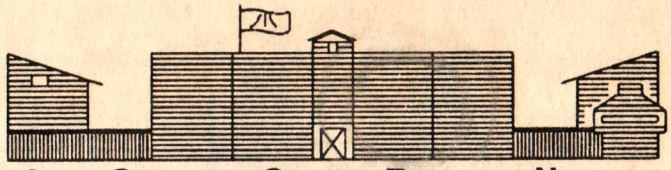
When user groups first sprang up about ten years ago, their primary function was to share technical information, which was not generally available or was difficult acquire. As technology continued to explode, users along the way found themselves with obsolete machines and dwindling support. Many users continued to pursue the neverending "Pie in the Sky" to have "the very latest"; others stood staunchly behind their computers, which were still every "bit" as capable, perhaps moreso, as the day they bought them. Meanwhile, most manufacturers abandoned the old in pursuit of the almighty dollar. Please don't misunderstand. Progress must progress.

But I do believe the prudent manufacturer will have the foresight to continue support for his loyal customers. Or, guess what? The loyal customers will become ex-loyal customers. So, assuming we choose not to join the masses in the neverending pursuit of the ever expanding technology, what is the lesson for us "ordinary" folks and user groups?

First, recognize reality. Many users will be responding to various pressures (or perhaps needs) and moving on to more advanced machines. Some of us will continue to think for ourselves and choose a machine that meets OUR needs. If you happen to have chosen an Atari 8-bit and it still meets your needs, why change?

Now the good news. While the majority are scrambling to have the latest, they are leaving in their wake thousands of machines and software for us loyal users to scarf up at rock bottom prices. Today, we can buy hardware and softare at 1/4 to 1/5 the original prices, and sometimes less. And while they may not be readily available at the corner computer store, there are several excellent mailorder sources nationwide. Or we can trade amongst ourselves. Moreover, there recently has been a surge of 8-bit interest and coverage in the publications. We eight bit users never had it so good!

Perhaps one day we will choose to "move up." But, when that day comes, where is it written that we must sell our historical CLASSIC 8-bit? So, 8-bit Atarians, rejoice; and keep the faith!



ATARI COMPUTER OWNERS RESOURCE NETWORK
FORT WAYNE, INDIANA

ACORN generally meets at the Shawnee branch of the Allen County Public Library on the first Saturday of each month beginning at 10 AM. For additional information please contact Ken Helms, 3627 Iowa Court, Fort Wayne, IN 46815 or call our BBS at 744-1396 (300 to 9600 baud, F-Net node 678).

Notes from the August Meeting:

Mark Garrison demoed his Gravis Mousestick which can be used as either a mouse or a joystick. It is programable and very versatile with a list price around $100. Mark demonstrated it with MIG-29 and highly recommends it for cad and drawing programs. (Even works fine with a Mouse Master.) Scott Schaffer demonstrated DOS-XE for the 8-bit Atari computers. Mike Surface demonstrated Midwinter II: The Flames of Freedom which is a spy-mission simulator with awesome detail. A copy of Hot Rod was donated as a door prize by Computer Corner and was won by Jim Barnes.

Business Meeting: A reminder that the October meeting will combine ACORN meeting with the IEEE meeting. The focus of the meeting will be high performance, low cost alternative computers including demonstrations and discussions of telecommunications, word processing, data bases, etc. Several computers will be set up and demonstrating different software packages. A pizza party mixer is planned at the local Pizza Hut after the meeting. Several members shared their impressions of the MIST Atarifest including the latest news from Bob Brodie.

We were told that Bob Frasher passed away July 30. Bob was an active member of ACORN for several years and he will be greatly missed. Bob helped out at most of our special events and enjoyed demonstrating how to use an ST and a synthesizer to make music. Bob left behind a wife and three children. ACORN members interested in contributing to the trust fund set up for his children's education should contact Kim Stahn.

The end of the year promises to be very busy with the joint ACORN/IEEE meeting and ICE in October; Pentacon and the big Atarifest in Chicago in November; and December will be nominations for next years officers.

Notes from the September Meeting:

Discount subscriptions to Atari Explorer are available if you are a user group member according to a letter we received. We now have to pay shipping costs to continue receiving Atari User magazine. We will see if Computer Corner wants to split a shipment of 100 copies and save some money. If not, we will purchase them on our own.

Demonstrations at the meeting included PageStream 2.1 for the ST by Ken Helms and The Writer's Tool v2.25 for the XL/XE by Eric Converse.

Several members are making plans to attend Atari's Computer Show in Chicago in November. The group intends to purchase a block of 20 tickets and make them available to members at cost ($4 each) on a first-come first-served basis.

The Atari Computer Owners of Rochester, NY (ACORN) meets on the 2nd Wednesday of each month at Brighton High School, 1150 Winton Road South. Our general meeting starts at 7:00pm in room 262S, with a split into ST and 8-bit SIGs at 8:30pm.

ACORN has both an 8-bit and ST PD software library. Over 300 8-bit disks and over 100 ST disks are available to any individual. We operate the Dimension's End BBS at (716)436-3078, 300/1200/2400 baud, 132 MB of online PD and shareware files. Membership in ACORN is not required to access the system.

Membership in ACORN is $20/year, plus an extra $6/year to get AIM. Membership includes a year's subscription to both the ACORN Kernel newsletter and AtariUser magazine, 12 meetings, access to our PD libraries at a reduced cost, and special access to the BBS. Our mailing address is: PO Box 24920, Rochester, NY 14624.

President Don Allis (716)293-3415
Vice Prez Joe DePierro (716)223-7838
Secretary Chris Freemesser (716)328-1703
Treasurer Sam Duck (716)461-0544

ASTMUM
ATARI ST/MEGA USERS (Montreal)

Our users' group consists of MIDI musicians, composers, videographers, artists, writers, technicians, students, teachers and business people. We also welcome new members interested in learning about the ST/MEGA models and their applications before purchasing.

Founded in 1987, ASTMUM has provided its productivity-oriented members with technical support, training and emergency assistance (24-Hour Repair Hotline), as well as discounts (through participating dealers) on original software, computer hardware and music industry-related equipment.

To benefit its members, and the visiting public, our group has participated in these shows and expositions:

CEGEP Rosemont AtariFest, Montreal, September '88
WORLD OF ATARI, Dearborn, MI USA, June '89
PRODUCTION '90, Montreal, May '90
SIIM '90, Montreal, June '90
Windsor/Detroit International AtariFest, May '91
PRODUCTION '91, Montreal, June '91
SIIM '91, Montreal, June '91

We have kept our members informed of Atari's progress on their most recent models (TT, MEGA STE, ST Notebook and ST Pad) through our large periodicals library, videotaped show-tours and interviews with software and hardware developers.

Encouraging members to form special interest groups, we hold monthly meetings (usually the last Sunday of each month) and offer seminars and demonstrations.

Membership information may be obtained by writing to: ASTMUM, Attn: K. Carter-Morgan, P.O. Box 966, Station B, Montreal, QUEBEC, Canada H3B 3K5 or by phoning (514) 272-6631 (voice only).

Executive Exhortations by Kest Carter-Morgan:

This magazine is getting to be (nicely so) a compendium of users' groups and their positions on controversial topics, their helpful activities and their future direction.

I'd like to tip my beret to Robert Pecora, of CACE, for his article "The Great Piracy Questionnaire" (AIM, March '91). It should be required reading for computer users of all platforms, as well as Atari users everywhere.

Club officers, handling memberships, have often heard "If I join your club, can you get me a 'free' copy of 'blah-blah' program?" or "I have a copy of 'blah-blah' program, but no manual. Can you teach me how it works?" If good judgement is employed, a member's response to such tactics can avert disaster for the club and preserve the member's reputation.

Since most of us use (or intend to use) our computers to earn our livelihoods, we make a point of showing applicants that our club is not a haven for software pirates. Our number-one rule forbids copying of commercial programs at meetings, or dissemination of information that could direct or induce members towards a software pirate. Instead, we make quantity purchases of original software, directly from authors and participating dealers, thus demonstrating that there are cost-effective alternatives to piracy. Remember, an author would rather negotiate a fair price for his software and have his users REGISTER, than lose sales and be kept in the dark -- wondering how many people are making use of his intellectual property.

A BBS requires dedication and work to keep it devoid of commercial software. We would rather not have a BBS at all, than have one that puts the intellectual property of software authors at risk. However, positions are open for a pair of well-principled individuals to develop and maintain a members-only, training-wheels BBS, on which beginners can make mistakes without fear of derision or impatience from others. As we gain more expertise, we hope our BBS will evolve into something to be proud of and STAY proud of!

Once again, we'd like to thank Mr. Pecora for his stimulating article!

The Chicago AtariFest is edging ever nearer. We intend to be there and would like to hear from other groups and developers planning to attend. This time, I hope we'll have a larger team to both manage our booth and document the show. It would be great to organize some social activities as well!

Adieu for now!

If anyone asks, tell 'em you saw their ad in AIM!

Champaign-Urbana ST Users Group

The Champaign-Urbana ST User's Group (CUSTUG) meets at 7pm on the second wednesday of each month in the Auditorium of the Urbana Free Library at the corner of Elm and Race streets in Urbana, IL. Membership dues include a subscription to AIM and ATARIUSER magazines, as well as access to our PD software library. All who are interested in the ATARI ST & TT computers are welcome. The group supports a local BBS, Blackhawk's Keep, operating 24 hours a day at 3/12/2400 baud (1/8/N): 217-892-5512.

Lee Johnson President
Menno Rapson Vice-President
Bill Magro Secretary/Treasurer
Tim Brumleve PD Librarian
Contact address: CUSTUG, PO BOX 3442, Champaign, IL 61826-3442

Middle Georgia Atari Users Group

The Middle GA Atari Users Group is the sole Atari Club in the Middle GA area. We are composed of 40 members of which approx. one half are ST users. Club president Pete Miller can be reached by phone at 912-328-8758. The M.G.A.U.G. address is 115 Feagin Mill Rd., Warner Robins, Ga. 31088. MGAUG meets the second Sunday of each month at 1 PM at the Warner Robins Library. Annual dues are $5 with the newsletter optional. Use of the club library is free to all paid members.

OCTOBER MEETING

The October meeting kicked off at the usual time. Turn out was good with three members from the Atlanta ST users group including their president showing up at the meeting. We are glad that they decided on the 100 mile trip to attend our small meeting. Bob Blackshear was nice enough to bring his computer to the meeting which was a boon in that we had some lively discussions.

Atari has a lot of things on the horizon but whether that will help Atari U.S.A. is still a toss-up. The TT is supposed to shipping at this time with the 32Mhz clock instead of the 16. It will also have an extra bonus in a new desktop that has a lot of features found in NeoDesk. Speaking of NeoDesk, Atari Canada, is offering several bundles of software including NeoDesk.

The Atari CD ROM has finally been released to the public for under $600. Two Atari disks have been released including a disk of Public Domain software and a disk of Clip Art. Atari is also selling a 520STe in Europe, no news if or when it will be offered in the U.S. Atari is also marketing a new monitor to take care of the STe's sound. The new color monitor will have stereo and is an entirely new monitor.

On the software front we have some new software that promises to be a boon on the Atari front. M1 Tank Platoon from MicroPose will be released soon and should be a must have for Strategy gamers. For Wargamers there are two new releases that may be of interest, Universal Military Simulator 2 and Halls of Montezuma are for hard core Wargamers only. Also for strategy of a different type there is SimCity for the city or for an enhanced Populus type of game there is PowerMonger.

We had the drawing for ACCESS at the meeting and Jeff Vincent was the lucky winner. ACCESS is a program called a command line interpeter that gives you an IBM style command line and also offers Batch Processing. Another ACCESS program will be given away at the NovemAtari has a lot of things on the horizon but whether that will help Atari U.S.A. is still a toss-up. The TT is supposed to shipping at this time with the 32Mhz clock instead of the 16. It will also have an extra bonus in a new desktop that has a lot of features found in NeoDesk. Speaking of NeoDesk, Atari Canada, is offering several bundles of software including NeoDesk.

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Also at the meeting was LEE MAVITY with his new 85 Meg hard drive from D&P Computers. The hard drive featured an under the monitor style case and has a clock, fan and room for an additional drive. One member said that the case was an old ATR8000 case from the Atari 8-Bit days. All this for under $600 - a great price. If you are thinking about a hard drive you may want to give D&P a call.

The next meeting will be on December 9th at the library at 1 PM. I hope to see you there and Why don't you bring a friend.

The Prez Sez by Rick Reaser

We've been selling lots of blank disks at the SIG meetings. New 5 1/4 inch disks are available for 25 cents each, while 3 1/2 inch disks are available for 35 cents each. Pick up yours at the meeting or give me a call. We bought 100 5 1/4 disks and 500 3 1/5 inch disks. Additionally, Terry Quinn has donated a large number of used 5 1/4 floppies to the club which we are using for the AIM Disk of the Month. By the way, the ST and 8-bit AIM Disks of the Month are always available at the SIG meetings.

Remember that for you modemless members, the club has a loaner Hayes 300 baud modem and an Atari SX-212 1200 baud modem with cables that you can check out. The

SX-212 can connect directly to both 8-bit and ST computers.

Chris Smith's Last Castle (390-9837) is temporarily down. Another BBS worth checking out is Pinnacle (599-9059). Pinnacle has been advertised in the Gazette Telegraph computer want ads lately. It is principally an Amiga board and appears to be run by Paragon Computers (where our club library is normally located). Be sure to check out Maggie's Place (531-5531) which is the public library's BBS. Finally there is a BBS in town that deals with real estate (260-6475).

We've started to mail out little postcards to remind members of upcoming meetings and events. Hopefully, you have been receiving them. We also are putting announcements on the Cable TV Bulletin Board and in the Gazette Telegraph Community section. Be on the look out for our publicity efforts.

Remember that in order to get your free Atari User Magazine, you must come to a SIG meeting. We even have back issues if you missed a meeting.

At the September 8-bit SIG, we demoed the various cartridges available at the Children's Palace fire sale. It was a blast. Roger Meston showed us total domination in Donkey Kong. I never knew that there was more than one screen. Roger also showed us how to play Hardball! He must have cheated and read the instructions. We stopped the meeting early (a first for the 8-bit SIG) and headed over to Children's Palace. We reorganized all the 8-bit stuff onto a single display and found a bunch of stuff. At least 20 cartridges were purchased between the six of us who made it over there.

Your's truly has been asked by the Current Notes 8-bit editor, Ben Poehland, to review a new 8-bit 3-D graphics modelling program. I should get the disks shortly and will run through it at a future 8-bit meeting. According to Ben, there are several new 8-bit products out and reviews should be coming out shortly.

At the August ST SIG, Linda Cullum did an outstanding demo of the ST's Musical Instrument Digital Interface (MIDI) capbilities. She brought a Proteus synthesizer with a Casio keyboard. It was outrageous. The software demoed was Dr T's Tiger Cub and KCS Omega. Another neat program was Band in a Box. We had a heavier than usual turnout and those of you that missed the meeting really missed out.

Be sure to let us know if you change your address so you can continue to receive AIM. The post office isn't real good about forwarding third class mail. Also, please check your mailing label to see if your dues are up and get paid up.

See you at the next SIG meeting.
Rick Reaser, P3ACE President
(Home) 380-8082 (Work) 554-5905

R.A.C.E.

President Lewis Midyette 828-4319
Vice President Eric Schofield 851-5134
Secretary Don Nelson 942-2764
ST Librarian Tony Manino 851-8092
8-bit Librarian Arthur Katz 880-2047
Treasurer Jim Harrop 851-5134
BBS SYSOP Robert Yates 552-7053

This is Tony Manino, your ST Librarian, and another W.A.A.C.E. AtariFest has come and gone, and boy did we have fun! As always, there were good deals, much to see, and many cool people to meet. Those of you that weren't able to attend will have to make a special effort to get there next year. It's a blast, guys!

Something else you won't want to miss is our annual Christmas banquet. Last year's was held at O'Charley's, and it was packed with food, fun, and prizes! We're having a repeat performance on December 16, so write it on your calendar and BE THERE! That'll be O'Charley's Restaurant in Cary off of Tryon Road. We'll have a nice Christmas get together, and we'll be giving away free software! Check the club BBS for more specific information.

If you ever have any questions, feel free to give an officer a call, or get together with someone at the meeting. Hey, that's what we're all about... getting the best use out of your Atari, and having a lot o' fun!

November's meeting will be on the 19th or 20th. Please check the BBS for final details on this matter. NOTE: ALWAYS check the BBS for final details about the club meeting since this is our hub for information in R.A.C.E. If there are any changes, the BBS will inform you about the changes. See ya at the meeting gang!

ST Atari League of San Antonio (SALSA), P.O. Box 18731, San Antonio, TX 78218.

SALSA is a users group for 16 bit Atari users, but also supporting the next generation of Atari computers: Mega STe/TT/Lynx. Meetings are held on the second Tuesday of each month at the Balcones Heights Community Center, 107 Glenarm, San Antonio, TX, from 7:00PM to 10:00PM. Special events are held from month to month depending on interest. New user classes are held each month to help users to learn the best ways for traversing the GEM environment.

Membership dues are $20.00 per year and members receive AIM as well as the option of recieving the clubs newsletter. A one year membership without AIM is $15.00 and includes the clubs newsletter. A subscribing membership is available to those not able to attend meetings and includes the clubs newsletter and all discounts available to normal members. A monthly Disk of the Month is available at each meeting for $2.

President Kyle Miller 512-945-9469
Vice President Frank Hense 512-655-5411
Secretary/Treasurer Chris Cassaday 512-696-8057
Public Relations Doug Moen 512-659-7492
Software Librarian Shannon Stennis 512-666-2923
Hardware Librarian Russel Gibson 512-899-2797
Newsletter Editor Pat Birch 512-655-8970

San Diego Atari Computer Enthusiasts

General Meetings are the 3rd Monday of each month at the North Park Recreation Center Social Room, 4044 Idaho Street at 7pm. ST/8-bit workshop meetings are on the 1st Thursday of each month at the North Park Adult Center, 2719 Howard Street at 7 pm. All meetings are open to the public. Annual SDACE subscription dues are $18 which includes increased BBS access, AIM subscription, SDACE newsletter subscription, and reduced rates on the Disk of the Month. SDACE's address is PO Box 900076, San Diego, Ca 92190.

President Michael Bergman (619)558-7866
Vice President Danny Rickey (619)565-2179
Treasurer Steve Dato (619)565-2588
Secretary/Newsletter Editor Vladimir Vooss (619)534-4593
8-Bit Coordinator Tom Smith
Wizop/Memberships Steven Kiepe (619)549-3207
BBS - 24hrs, 300-2400 baud, 65MB (619)689-8157

SDACE News

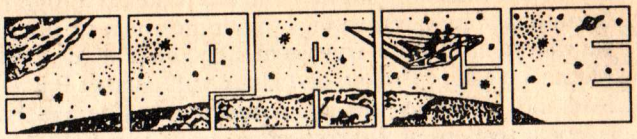
It's September 15th as I write this and the Glendale Atari Show sponsored by HACKS just ended. I spent a full day at the show, looking at all the latest gadgets (or GADGETS as the case may be) and I managed to spend several months worth of "discretionary" funds upgrading many programs as well as in picking up some new products.

The show was well represented by most of the big name Atari developers and programmers, and there were a few major new products making their debut. The consensus was that the crowds seemed smaller than in years previous but an official count has not yet been released. There appeared to be a steady stream of cash changing hands so many venders should have done quite well.

There were TT's everywhere - virtually every booth had at least one TT and a Mega STE as well. Unfortunately, there weren't any readily apparent for sale. Additionally, none of the anticipated new products such as the ST Notebook were shown. Bob Brodie was forced to leave the show early due to a family emergency but he was kind enough to donate (for Atari) complete Migraph Touchup and Scanner packages to all participating user groups. That kind of thoughtfulness buys a lot of good will.

While the smaller crowds in attendance than in years past would seem to confirm Atari's inexorable slide into oblivion, new developers are producing exciting new products for the Atari series of computers thus ensuring their utility for years to come. Rather than close the chapter on the Atari, this show, at least for me, confirmed that there is life after "games." Almost without exception, the developers and retailers who demonstrated their products at the show were aimed squarely at the "utility" and "performance enhancement" side of business. This indicates to me that there are still a lot of people who take their Atari's very seriously. I welcome this shift in attitude and hope that it bodes well for the future.

If you are in the San Diego area, please feel free to join us at any of our meetings.



SPACE, the Southcentral Pennsylvania Atari Computer Enthusiasts meet on the third monday of the month at the Camp Hill Mall Community Room. The doors open at 7:00 and the meeting begins at 7:30. Dues are $15.00 per year and include a subscription to AIM and SPACE Probes, our official newsletter.

SPACE was founded in 1982 and is still going strong. We support both ST and 8-bit computers.

For more information, call either John Slade, President at (717) 938-3656 or John Hileman, Newsletter Editor at (717) 938-8753 or write to: SPACE, PO Box 11446, Harrisburg, PA 17108.

Here is a list of upcoming meeting themes:
October 21 - The public domain
November 18 - Music and the Atari
December 16 - Christmas Party and Game Night

The Saginaw/Tri-City Atari User Group meets the 2nd Saturday of the month, at 9 am, at the Rudy Zauel Memorial Library, on the corner of Center and Shattuck in Saginaw Township, Michigan. Upcoming meetings are September 14th, October 12th, November 9th, December 14th 1991, January 11th, 1992, and February 8th, 1992.

President Bryant LaFreniere (517)835-2234
ST Librarian Jim Fleming 793-9792
Treasurer/Secretary Marty Schmidt 792-6029
8 Bit Librarian Ted Beauchamp 686-8872

Club dues are still only $20.00, which provides support for both the 8 Bit and ST, and full access to the club's Public Domain library, along with a year's subscription to the Atari Interface Magazine. PD disks are $3 for a double-sided disk packed full of goodies (2 for $5, what a bargain!). Check your mailing label, if you need to renew, (or haven't joined us yet!). A free PD disk is included with each new membership or renewal! DO IT NOW!

At The September Meeting:

We discussed the newest developments of the Atari Interface Magazine (AIM) and everyone was in good agreement that the new format change was good, especially for the fast delivery of our club news. With the use of postcards to send information to our members before the meeting, we have good communication of our activities to our current members (even without AIM).

Important Note:

We are going to have our meetings on the 2nd Saturday of the month (not the last Saturday before the 18th) to make our scheduling more consistent. The only reason we had the weird scheduling was to make it easier to receive AIM before our meetings. Since we are not receiving AIM

before our meetings anyway and the postcard program is communicating our meetings to our members sufficiently, we will go back to the consistent schedule (2nd Saturday of Month). Nelson, Bryant, and Hank will contact Bay City, Midland, Saginaw for announcements to be put in the calendar sections of the respective papers to remind current members and hopefully bring notice to new members about our club. The postcard that will be sent to you before the meeting will reflect the new change.

At the September meeting, the 8-bitters out-numbered the STers (6 to 3) for the first time that I have ever been going to our meetings. That is a good sign that the 8-bits are alive and well. Unfortunately, that also means that the STers need a lot more participation if we are going to have productive meetings for the ST. A new 8-bit member, Roger Pavlawk, had joined our club. Welcome, Roger. The new magazine, AtariUser, that we should be getting free has been shipped to our old president's house. He has supposedly been dropping it off at Simply Software in Bay City. I will try to correct the mailing problem so I can bring the magazine to our meetings from now on. The 8-bitters demonstrated the newest 8-bit AIM disk and the programs, MINIATURE GOLF and GAUNTLET. They will continue to look at the 8-bit disk and any special request from their 8-bit members. The ST group looked at WORDFLAIR II, a word processing program from Goldleaf. The newest GDOS, FSMGDOS, should have been in by that time, but due to numerous delays it has not arrived at anyone's home. Nevertheless, WORDFLAIR II was shown.

It appears that WORDFLAIR II is not compatible with QUICK ST. The program bombs on saving a file and the screen appears distorted (top and bottom of the document is seen on the same screen). WORDFLAIR II does have some nice features such as the use of GDOS fonts and the new FSM GDOS fonts. You can have designated areas (boxes) on the page that is dedicated to certain functions (text, math, graphs, images) that can use the information between them. For example, changing a number in a table at the top of the page can change a graph on the bottom of the page. Mail merge can be easily accomplished with record files. An user-friendly dictionary and thesaurus is also included. Although there is another program, WORD PERFECT, that has other functions not associated with WORDFLAIR II, I hope that with the continued updates to WORDFLAIR II (the company is continuously improving the product), that this program will be the direction that word processing will continue in the future.

In OCTOBER:

At the October 12th meeting, we will look at the various public domain software that we have for the ST and 8-bit in our library. As soon as a member receives the newest GDOS, FSM GDOS, there will be a demonstration of it with WORDFLAIR that will show you the power of ultimate word processing. Marty Schmidt (monitor) and Jim Fleming (ST computer) will be the equipment volunteers for the ST in October. 8-bitters should contact Ted Beauchamp for the agenda for the 8-bit section of the club. Also, all members should be thinking of the Community Fair at Fashion Square Mall in Saginaw the first weekend of January 1992. We need participants to make this show a success.

President Chris French 221-5705
Vice-President Jim Jensen 366-5181
Treasurer Kathi Koenig 892-0881
Disk Librarian Joseph Adato 449-6881

The ST Atari North Coast Enthusiasts (STANCE) is an independent, not for profit, Atari computer user group and is not affiliated with Atari Corporation or any of its affiliated in any way.

Dues are $12.00 per year with a one time $13.00 sign up fee.

STANCE club meetings are help every third Monday of each and every month at B & G ELECTRONICS (located at 15729 Madison Ave. Lakewood, OH 44107) starting at 7:15 P.M.

The Washtenaw Atari Users Group meetings are held every second Tuesday of the month at 7:30 PM in the Michigan Union building on the campus of the University of Michigan on State St. at the corner of S. University in Ann Arbor MI.

Club dues are $15.00 per year and provide access to the PD library and a subscription to AIM magazine. Meetings feature demos of both 8 bit and ST hardware and software. Non-members are welcome to attend and questions are invited. Officers can be contacted by calling Craig Harvey at (313) 971-8576 or by calling the MOlin's Den BBS at (313) 451-0524.

The August WAUG meeting was opened at 7:30 PM by President Dave Brzezinski and launched immediately into a general discussion of club hardware purchases (we're still looking). Pattie Rayl of AIM magazine then showed off the new "club meeting minutes" insert in the magazine and asked for members commentary.

8-bit Librarian Dick Selke passed out a description of the latest AIM 8-bit disk-of-the-month and also a PD basic tutorial disc and a three disc package of The New Aladin Magazine.

Ken Antkowiak was up next with a review of an ST program,Wordflair II "the document processor" along with the Codehead's Codekeys. Ken passed out a printout of the WAUG July minutes to the membership to demonstrate the quality of printing that could be expected from this program. While the membership examined the printout, Ken went on to explain some of the hardware requirements for running this program on an ST. The program requires at minimum 1 meg of memory and 2 double sided drives and will run in either color or mono. The addition of 2.5 meg of

memory will allow the use of more fonts and a built in help system and a hard drive is recommended for increased performance. He also commented that Wordflair II was capable of up to 9 columns of print with margins set anywhere you might want.

Wordflair II presently uses GDOS for font technology, but Ken explained that it is already set up to use the new FSMGDOS when it becomes available. Graphics, which are loaded from the disk separately, can have their aspect ratio preserved or not as a user preference. A demo of the spreadsheet and database capabilities of Wordflair II by setting up resizable regions within a document and entering the data was also illustrated by Ken. He went on to inform us that page numbers could be entered anywhere on a page and gave us a short description of the rudimentary drawings tools and the modifiable spell checker included with this program.

Does he like like Wordflair II? Yes, he said that he used it frequently and was very pleased with the included manual. The only minor complaints that Ken expressed were the slow speed of the program using GDOS and the fact that it occasionally crashed for reasons unknown to him.

Ken's next demo was of a program from Codehead Software called Codekeys. Actually, he was using Codekeys to bring up demo screens in Wordflair II. Codekeys can be used to set up an automatic macro to be run at the start of any program and any of it's macros are fully editable by the user. Ken went on to set up a macro to demonstrate how easy it was to do and commented that there were probably more features to this program than he could ever use. Several of the other members using this program commented they they too found it useful and easy to use. About the only thing that Codekeys was unable to do was to hold a left mouse button press, but with so many other features Ken was sure that anything like this was a very minor flaw.

Our ST Librarian, Mike Olin, then made his appearance with a fistful of new library disks including a new library catalog disk and 2 new AIM disks-of-the-month. His description of the contents of these discs impressed one and all that they would be a valuable addition to any STer's library.

Our monthly free raffle was held with all present participating and the lucky winners being rewarded on the spot just before adjournment of the meeting at 9:30 PM.

WAUG GENERAL MEETING MINUTES SEPTEMBER 10, 1991

The September WAUG meeting was opened at 7:30 PM by President Dave Brzezinski in his usual inimicable manner. The first order of business was the Treasurer's report by Russ Crum. Russ dutifully informed us that our treasury was in great shape (over $2000.00) even after spending some $1440.00 on club hardware in August. President Dave B. thereupon again took the floor to announce the prizes for our monthly free raffle and to make a pitch for new membership.

The unveiling of our new club hardware was presented by ST librarian Mike Olin as he assembled the new Syquest 44mb drive from Westcomp Electronics in Westland Michigan with an ICD host adapter into it's case. The enclosure that we chose was from D&P Computer Products of Elyria Ohio and was an under monitor style complete with power supply and fan, cables, up front switch and room for two half height devices. The assembly of the unit was easily accomplished (Mike cheated, he already had it together once) and members began to ask questions about the drive's speed, performance and price.

Unfortunately, the assembly of our 8 bit hard drive system did not work out quite as well. The hardware for this unit was all bought used at bargain basement prices except for the K-P (Supra) interface. Mike had also assembled this set up beforehand and determined that all the hardware was functioning properly with his own ICD 8 bit interface. In spite of the best efforts of Mike and 8 bit librarian Dick Selke, they had no luck in getting the K-P interface to respond properly so back it goes for replacement or revision. Several 8 bit members then commented and asked questions about the merits of different 8 bit interfaces regarding their respective prices and features.

It was then time to put our new 4 meg 520STE from Team Computers of East Detroit Michigan to work with our new ST hard drive and a Panasonic C1391 Multisync monitor and Omniswitch. Dick Selke was kind enough to bring his own personal monitor for the demo. He explained the fact that he had carefully chosen this particular model for its ability to correctly display all three ST resolutions with only one screen. The system was all connected and up it went as intended. Mike demoed the club Syquest drive and even showed how the cartridges could be swapped on the fly without rebooting, thereby giving any ST virtually unlimited storage capacity.

Our ST librarian managed to drag himself away from the new toys long enough to present the club with a plethora of new disks loaded with software for every taste. The AIM disk with more DC utilities, Pagesteam fonts, a game demo, Fortran language program, a resolution enhancer, database, hard drive utility, mouse accelerator, an educational program and more looked like all that could be asked for.

Not good enough for Mike though. He then presented us also with an entire disk of pre-school educational programs, three full disks of games from the UK, a business applications disk that included twenty seven Pagestream fonts with an editor, a disk of statistical programs, and a utilities disk starring a Pagestream print speed-up program.

Not to be outdone, the 8 bit library took the stage with Dick showing off the AIM 8 bit disk-of-the-month, a valuable offering featuring two Bible verse games, a TextPro mail merge, RGB Paint (a 4096 color paint program on the 8 bit?), Space Gauntlet, a Kermit protocol, and a Printshop to Daisy Dot conversion utility. The disk from our own 8 bit library this month was an adult game disk with graphics that Dick said he would have to see an ID with proof of age before sale. The graphics are that good?

Questions about any ST or 8 bit topic were solicited from the assembled members as our President prepared for the monthly drawing. A copy of DREDIS, a new 8 bit game from Software Infinity, went to the lucky 8 bit winner with a copy of Menu Plus going for the ST.

After very brisk sales of both ST and 8 bit disks, one last bit of business was conducted before our adjournment. The members voted unanimously to instruct the secretary to convey our thanks to Mike Drysdale of Team Computer for his help and support.

Respectfully submitted,
Dan Cable, Secretary

President Mike Husband
Vice President Kevin Packard
Treasurer Dave Shane
Secretary John Kasupski
WIZARD'S ATTIC BBS (716) 681-1654

Minutes of August 1991 Meeting

Although we cancelled our July meeting because of the Independence Day holiday, our "off" time was productive as we gained two new members, Douglas Tolkacz and Christine Hess.

We also released the first POKEY Newsletter Disk and, as with any new undertaking, a few problems were reported: At the meeting we repaired a few disks (Side 1 wouldn't boot on some members' disks). In the future each copy of each disk will be booted before distribution to make sure this doesn't happen again. Also, from now on members who attend the monthly meeting will receive their disks at the meeting. We will mail out the rest of the POKEY disks a day or two after the meetings. The reason for this is twofold: (1) It will help reduce mailing costs, and (2) Members who attend meetings will benefit by receiving their disks a week or so ahead of those who don't!

If anyone else received a defective POKEY disk, please contact Dave Shane at 875-5350 or leave E-Mail for DOC on the Wizard's Attic to let us know so we can arrange to fix things up.

Dave reported that the club's hard drive and controller card have both bitten the dust. Therefore, we are now seeking a donation of a 20-30 Meg full-height 5-1/4" MFM drive, to go along with the spare MFM controller card Dave's willing to let us have cheap. If anyone reading this, company or individual, would like some good publicity and the eternal gratitude of the WNYAUG, here's an opportunity to do a good deed for a local users' group by donating or offering a real good deal on a hard drive that we sorely need.

The reconstruction of the WNYAUG Software Library is very nearly completed. There is some EXCELLENT stuff that's been added to the library during this process. This means that from now on our club Disk Of The Month will be all NEW stuff. It also means that if you're looking for a PD/Shareware program, you might want to check our library first before you go hunting all over the place...you might be surprised what you'll find right in your own back yard!

Kevin handed out a list of 8-bit software available from the CHOICE Computer Centers Computer Outlet in Arden, NC, where he was on vacation. There was a nice mix of games and educational titles, available in limited quantities at rock-bottom proces. I for one plan to take advantage of this. Thanks, Kevin, for bringing this information back to the group!

Kevin also reported that he has been in contact with Jones Cable regarding production by WNYAUG of a public service video about Atari computers and our group for broadcast on their public access channel. This has to be more of a documentary than a commercial, for obvious reasons. For those interested, the first thing we need is a script.

Mike then demonstrated the mods he made to the POKEY Newsletter Disk program, inluding the addition of a jingle, and the mods to the DIPCHIPS.PIC file he did for the newsletter. Members are reminded that the POKEY Newsletter Disk is still considered to be under development. In other words, if you can improve the program, by all means do so. This is YOUR newsletter, and anything you can do to make it better will benefit all of us!

Mike also demonstrated the difference in speed between Turbo BASIC and Atari BASIC by running the same program in both languages. The D.O.M., a collection of graphics utilities and demos programs from the WNYAUG library, was also demonstrated.

A split club drawing was then conducted, and Doug Tolkacz was the winner. Imagine, a NEW member attending his FIRST meeting won the split club jackpot! Next time, it could be you, so plan on attending the September meeting. As they say, ya gotta be in it to win it!

August 3, 1991, John Kasupski, Secretary

MIKE MODEM MODULATES

by Mike Husband

Elections at the WNYAUG. "Election" is a very deceiving word to use...it comes down to whomever raises their hand first, gets elected. We're still waiting for someone to raise their hand for Vice President. I always compared the elections of the WNYAUG to those in Russia: Once elected to a post it's a life nomination. I volunteered for Vice President & ended up President. It's kind of nice to be in a group where you can move your way up the latter. The only way out is to stop going to the meetings or die. If any member wishes to be Vice President PLEASE CONTACT ME!!!

As I was reading my April/May AIM, I noticed that a lot of the 8-Bit Clubs were re-organizing their libraries. We have been re-organizing our library too. It might be a good idea to contact these clubs and see what is in their libraries.

I am working on a new emblem for the Club. The picture of the disk with WNY-the Atari Emblem-UG is kind of dated. We don't do anything without voting on it, we will take a vote on this too.

We will be getting the membership drive started soon. Maybe we will have a new Vice President after all.

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Wrath of the Demon from ReadySoft. Excellent game with good graphics and stereo sound! Still shrink-wrapped. $15

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Ultimate Ripper

Bill & Pattie Rayl

Our first impression upon seeing the recent advertisement for the Ultimate Ripper from Power Computing was "Oh no, not another pirate's tool!" The ad starts off saying "Breaks into any ST program."

Reading further into the ad, we noticed the Ultimate Ripper had a number of features useful to many ST owners and one in particular that we have literally been begging for—the ability to save graphics out of copy-protected games. As publishers of this magazine, there have been numerous occasions when we have wished for the ability to get screen snapshots of protected games.

The Ultimate Ripper cartridge makes it fairly easy to not only remove graphics from games, but it also allows you to rip out music, digitized sounds and a whole lot more.

Many of the Ripper's features are only of interest to programmers and serious hackers (we mean that in the true sense of the word). For instance, the Ultimate Ripper does have the ability to disassemble code, edit system memory and many more very technical functions.

This review will not focus on those more technical uses of this cartridge. Instead, we'll try to give you a feel for how this cartridge works and look at some of the features useful to the average ST owner.

Let's Get Ripping

The package from Power Computing consists of a hard plastic case for storing your Ultimate Ripper cartridge and manual. The case indicates that a French and English version of the cartridge is available. There is no software disk—the Ripper software is built into the cartridge itself.

The cartridge isn't very remarkable to look at. Its only outstanding feature is a toggle switch located on the left side of the housing. With your computer turned off, you simply insert the cartridge into the cartridge slot. The Ripper is then ready for use.

Probably the easiest way to describe how to use the Ultimate Ripper is to use a real life example. Let's rip the title screen out of a game! The first thing you do is boot the game just like you normally would. When the title screen appears on your monitor, press the reset button on the back of your computer and hold it in. Then flip the toggle switch on the Ultimate Ripper and release the reset button.

Then, you have the option of pressing F1 or F2 to start using the Ultimate Ripper. Pressing F2 overwrites a specific part of system memory with the software in the Ripper cartridge. Pressing F1 moves that specific part of memory into another area of memory before loading the cartridge software.

It should be noted here that you have a few other options available. You could, for instance, press F7 to enter what the manual calls "trainer" mode. Or, you could press F9 to jump to the contents of address $30 (only of interest to programmers). Finally, you could press F10 to bypass the cartridge altogether.

After pressing F1 or F2, a few seconds passes and you are then presented with the Ripper's main menu. Pressing F1 at this menu takes you to the Image Ripper submenu. From here, you can scroll through your ST's memory, viewing the memory as graphic screens. Once you have found the graphic, you can save the graphic to floppy as a DEGAS picture.

While in the Image Ripper, you have control over a number of settings that affect the display of the graphic screens. You can change the number of planes, pixel width, resolution, color palette and more.

The Main Menu

The Ultimate Ripper can do a whole lot more than just search for graphics. From the main menu, you can select the Image Ripper, Memory Ripper, Disk Utility (rename files, erase files, format disks, etc.), External Call (load and run TOS programs), External Loader (load any file or disk tracks into memory), Music Ripper, Disk Ripper, Info (version number, etc for the cartridge) and Exit.

Selecting any of these entries on the menu (via a function key press) takes you to a sub-menu. We've already discussed the Image Ripper to some degree.

The Music Ripper

One of the more fascinating things you can do with the Ultimate Ripper is save music from your favorite games. The process is really quite simple. The hardest thing you have to do is figure out the starting and ending memory locations for the search parameters.

Once you've entered valid start

and end points, the Music Ripper software searches that memory range for any recognizable music files. If none are found, a message to that effect is displayed. If a music file is found, you are shown the starting and ending points in memory for the music, as well as a percentage indication of the search's success. We've only seen total failure or a 100% success.

Using Wrath of the Demon from ReadySoft, we found the music score for all the background music variations in one place in memory. We saved the music to disk as an executable file. Later, after booting the ST without the Ultimate Ripper on, we double clicked the music file. The music began to play from the desktop, and we could skip from song to song! Amazing.

Infinite Lives

One of the claims in the advertisement for the Ultimate Ripper is that you can use the cartridge to "search for infinite lives" in games. This is, indeed, true, but it's not a simple process.

What you have to do is use the Ripper in what is called "trainer" mode. In this mode, you have to use a separate piece of hardware that connects pin 20 to pin 22 of the RS232 port on the back of your ST when you push a button. This extra hardware is not supplied with the Ultimate Ripper cartridge, so you are left to create it yourself. While this is a fairly simple thing for most hardware hackers, it's not something every user can do.

If you do create the hardware, though, you can then interrupt a running program at will, search and replace values in memory and then restart the stopped program. This allows you to not only set a game for infinite lives, but also modify any program in memory without writing to disk. This is a great feature for programmers.

Calculations

Earlier, we mentioned the hardest part of searching is figuring out what values to use for memory locations. That is especially true if you aren't a programmer and have no concept of hexadecimal values or decimal to hexidecimal conversions.

Luckily, the Ultimate Ripper has a built-in Calculator. Pressing Control-C from any menu presents a box labeled "Expressions." Here, you can type in simple equations or do decimal and hexidecimal base conversions. So, if you have 512K or 4megs of memory, you can use the calculator to determine what your high memory value is.

The Manual

The 43-page user manual for the Ultimate Ripper is, frankly, the worst thing about this package. While it is chocked full of very detailed and technical information, the manual does not present this information in a very easy to understand or well organized fashion.

There are many times you must jump from section to section of the manual to get all the information you need to use a function of the Ripper effectively.

For example, to find all you need to know about searching for infinite lives in software, you find the first mention of this on page 3. There it says "Push the F7 key, and once software is in the drive, you will be able to enter infinite lives in the software." OK, sounds pretty simple. But, if you try it, the software reboots from disk and that's it. Nothing about entering infinite lives.

On page 37 of the manual, you find the next reference to using F7. Here, you discover that setting a game for infinite lives is a bit more complicated. On this page, you read "once you've loaded this option with the F7 key at the start, you may stop a program by creating [a ring indicator] interruption (push the switch at the desired moment)." What switch?

Your first instinct is the toggle switch on the cartridge, but that's not it. Your next thought is the reset switch on the back of your ST, but that's not it either! At the bottom of page 37 you are told, somewhat cryptically, how to make the hardware you need to create this ring interruption for the RS232 port.

Finally, if you read a paragraph on page 39, it all comes together. There, it spells out that you must use an "RS232 plug and the ring indicator" to stop the program. Sigh.

The only other problem with the manual is that it reads like a very bad translation from a foreign language. That's because that is exactly what it is—an English translation from a French original. While you can understand what the manual is trying to tell you, it does take some effort. Once you read the manual a few times, it all comes together, but it can be quite frustrating at first.

As a balance to all of the negatives concerning the manual, it does contain some of the best information you can get on the ST's disk and file structures, sound and video, how video memory works on the ST and a pile of other fairly technical subjects. If you find this kind of stuff fascinating or you don't know much about these subjects, it is well worth taking the time to decipher the information presented here.

Conclusion

The Ultimate Ripper is a unique product that packs a lot of features into one little cartridge. Programmers and hackers will probably find this to be an indispensible tool, while "average" users can have an awful lot of fun ripping graphics and sound out of games. For magazine and newsletter editors needing graphics from Atari games, the Ultimate Ripper is a wonderful piece of hardware. If you fit any of those above catagories, we wholeheartedly recommend this cartridge.

The Ultimate Ripper does have numerous capabilities that could very well lend itself to use as a "pirate's tool." However, it's probably not any easier to use for that purpose than any other disassemblers, file/sector editors, etc.

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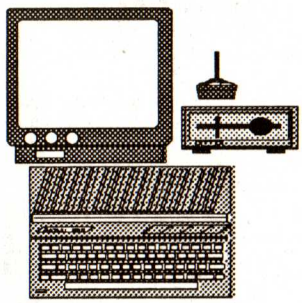
The XEP-80 and 9600 Baud



John Tally (WNYAUG)

Well, to tell you the truth, I was not too sure just what to call this writing. It deals with the XEP-80, but at the same time it deals with BobTerm and the SpartaDOS X cartridge.

Well, let's just dive in and see what happens.

If you are one of the Atari 8-bit users who likes to modem, then you more than likely already know about BobTerm. If you don't, it is a real nice Atari terminal program written by Bob Puff.

The XEP-80 is a piece of hardware made by Atari that plugs into the number two joystick port of your Atari computer. Once hooked to a separate monitor, it allows you to have an 80-column display.

SpartaDOS X is a cartridge made by ICD. It is a full-blown and very powerful DOS (Disk Operating System).

Ok, now that we have an idea of what the three things are, let's get on to what I have found out. When Bob Puff updated his terminal program, BobTerm, to allow it to work with the XEP-80, I was very happy. After reading the documentation, I was not so happy. He said the XEP-80 cannot handle speeds past 2400bps.

Well, this did not sit well with me at all! I not only am an Atari user who modems but also one who happens to have a 9600 baud modem. I also null modem from my Atari to my IBM or from my Atari to my other Atari.

Speed can be of great help, and having 80 columns plus speed would be real super! I also call a lot of non-Atari boards running on STs, IBMs, etc. So again, having 80 columns plus 9600 baud would be great!

I decided to test this out. I followed the docs for BobTerm so that it would autoload in the XEP-80.BTM. I then null-modemed into my BBS, trying it at 19.2K, 9600, 4800 and 2400 baud. Well, needless to say, it only worked at 2400bps.

But I am not one to just quit; and, seeing as I also own the SpartaDOS X cartridge, I thought it might be fun to try BobTerm using the SpartaDOS X cartridge's XEP-80 handler.

I first fixed up BobTerm so that it would no longer load its XEP-80.BTM file. Well, I was again totally disappointed in the results...it did not work at all. Oh, sure, I could view text files from BobTerm and they would show up on the 80 column monitor, but it did not work when I would call into a BBS.

Okay. So now I was frustrated at the fact that here I had a 9600 baud terminal program, but I couldn't use it in 80 columns. I decided to try one more thing.

I once again set up BobTerm so that it would autoload the XEP-80.BTM file that comes with it. I then also set up my CONFIG.SYS file for my SpartaDOS X cart so that it would load the XEP80.SYS file that comes with it.

I then booted BobTerm and, so far, things were normal. I then logged onto my BBS (null modem) at 19,200 bps, and guess what? *It worked!*

I was on the board at the whopping speed of 19,200 baud, and I was viewing everything on the 80-column monitor! Well, I was impressed, and ready to jump out of my seat and tell the world. Not only was I on at 19,200 baud, I was getting *no* character loss...everything was real smooth (just like when I would use the IBM system). Boy, was I a happy man!

But, I knew this was not the final test. I still needed to know if this was going to work calling through the telephone lines to a remote system.

So I disconnected the null modem cable and proceeded to call out to a local BBS that supports 9600 baud. I logged on the remote system—*no problem.*

The 80-column text looked great! Again, I had no problems viewing the text.

So there you have it: The XEP80 can and does support high speed displays.

There are a few things I have *not* tested this out on. On my system, I use the MIO to interface the modem, so I have not tested this on the P:R: Connection or the 850. But don't worry, as I do have access to an 850 and a P:R: Connection, so I will be trying this out on both of them as well.

Well, I guess that's it. If you have any questions please feel free to send them to me care of:

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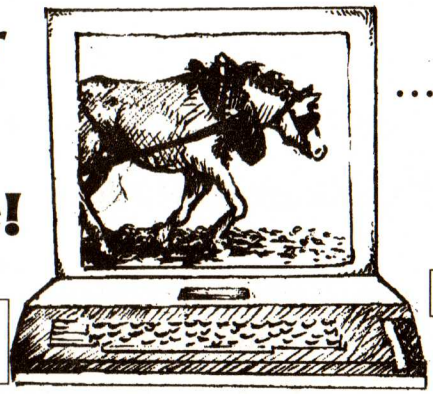

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More Than You Wanted to Know about Random Numbers

Michael Stomp

(With thanks to our lately departed President, Ed Correia, for suggesting this topic.)

Just what are random numbers? Some, attempting to be witty, will tell you that there is no such thing as a random number, but that misses the point. A random number could be defined as a number selected through a random process, which just passes the buck a bit. What constitutes randomness?

Since the word "random" has many unfortunate connotations of a more or less theological nature—free will versus determinism, chaos versus order, and so forth—mathematicians have coined a new word which, being unfamiliar, lacks such connotations. They prefer to talk about "stochastic processes." However, Mister Webster has doublecrossed the mathematicians, for if you look up "stochastic" in the dictionary you will be told that it means 'random'.

So, let's stick with the word random. A random process is one in which the outcome is governed by a probability distribution. Since we can use numbers to label the different possible outcomes, those labels are then random numbers. There—general enough to be useful to mathematicians and obscure to everybody else.

But now we have introduced another word: probability—which also has unfavorable connections to gambling. This is understandable, since the first scientific study of probability was performed by the Marquis De Laplace in the design of the games in the casinos at Monte Carlo.

But probability is not just about gambling or even about an absence of cause and effect in nature. Probability is about information. Some questions we ask, about systems for which we have complete information, can be answered by a simple "yes" or "no," or "true" or "false." But, for many other questions, the best we can do is a "maybe."

This is not because of the nature of the system itself, but because we lack the necessary information to do better. Probability, then, is a way of quantifying those "maybes" to get the best use out of the limited information we have.

A probability distribution is just a set of numbers, ranging between 0 and 1—0 meaning no or false or impossible; 1 meaning yes or true or metaphysical certainty; and anything in between meaning a stronger or weaker maybe—a set of numbers assigned to each possible outcome which reflects our state of knowledge about the system.

The word "system" may be a little vague here. Let me flesh it out with some examples. It could be an event that hasn't happened yet, in which we want to predict the outcome—such as "Will the 49ers win the Superbowl next January?" It could be something that has happened or exists now that we haven't measured yet, such as the current population of the county. Or it could be something that we have measured, but our measuring device is not 100% exact and we want to take that into account, such as measuring the dimensions of a table. Or it could be something that is impossible (or much too expensive) to measure completely and we take samples to get some information about the whole system. Product quality control is one example of that which comes to mind.

Let's explore one example. If I toss a coin into the air, we can ask several questions about the outcome.

1) Will it hit the floor?

I think we can give that a definite yes.

2) Where will it land?

We can't do as well on that one. It depends on where I aim and how good a shot I am. We would need to do some experimenting to get a measure of my accuracy.

3) Which face of the coin will be up?

Now, we have the least information about that, and no matter how much experimenting we do, the answer will probably remain a toss-up.

This leads us to the simplest type of probability distribution, the one in which we know little more than the number of possible outcomes. In that case, the best reflection of our state of information is to assign equal probabilities to each outcome.

Since the sum of the probabilities for all possible outcomes must total 1—it is certain that some side is up—we would then set the probabilities as .5 for heads and .5 for tails. To say otherwise would be to imply that we know something more about the coin—that it had been rigged, for example.

This probability distribution, where all outcomes are equally probable, is called a Uniform Distribution, and we would say that the coin flip is 'random and uniform over the set [heads, tails]'.

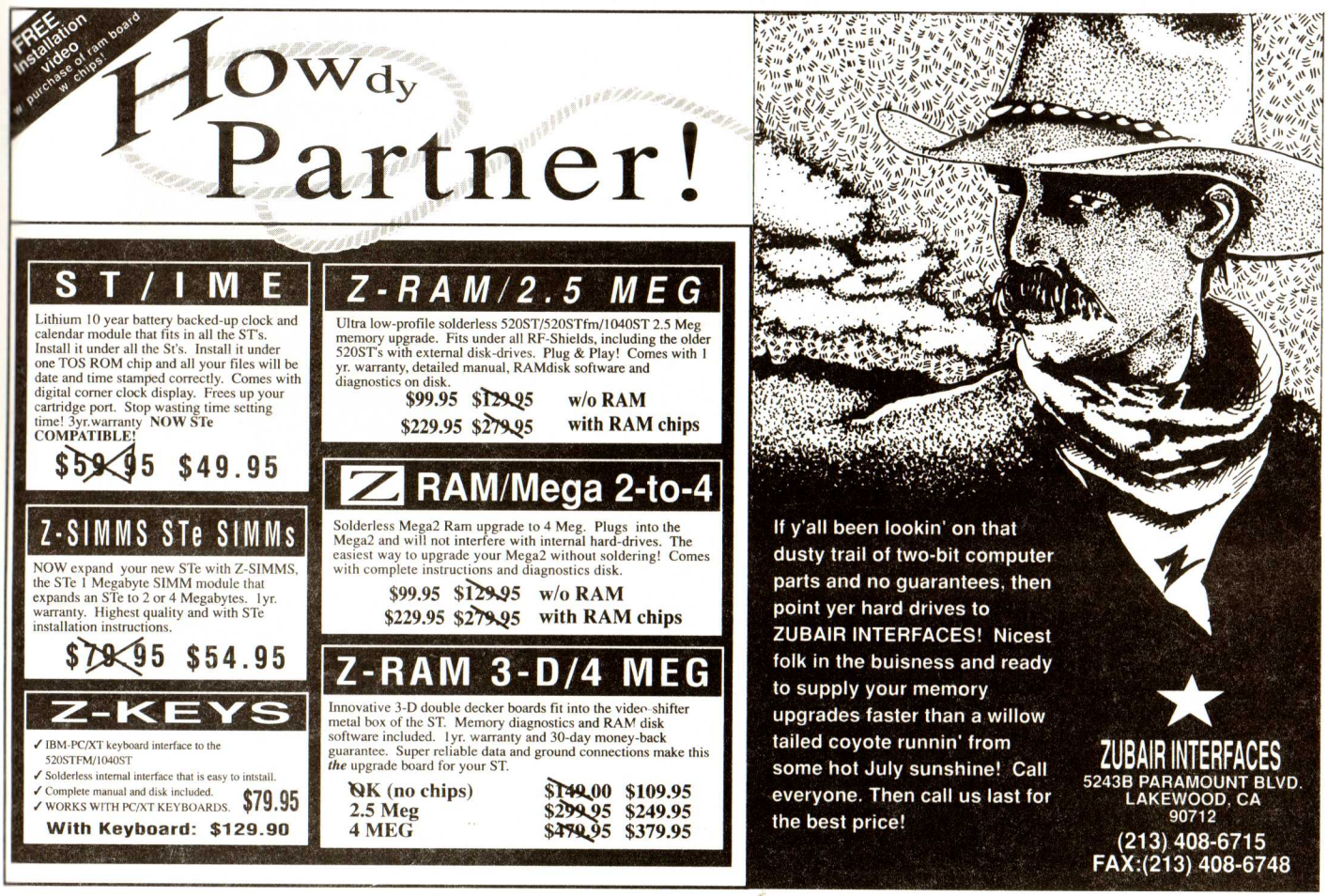
If we label the coin faces with numbers, [0, 1] say, we could use this coin to generate uniform random numbers from the set [0, 1]. (A footnote here—some restrict the term "random numbers" to ones selected from a uniform distribution only, whereas I, along with several authors, have used a more general definition.)

In a similiar way, the rolls of a die are described by a uniform distribution over the numbers from 1 to 6, the numbers in Lotto are uniform over the set from 1 to 49, and so forth.

The totals on two dice, however, are not uniform, even though each die separately is uniform. This is due to the fact that some totals can be made in more than one way. (This is additional information that we have in this case, and we must factor it into the probabilities. I won't digress further into the Probability Calculus now.)

In the examples so far, the number of possible outcomes have been finite and distinct, and could be represented by integers. That need not be the case. They may be infinite and continuous, and would have to be represented by continuous real numbers.

In my question #2 before—where would the coin land?—the position would have to be represented by real numbers, which would be infinitely close together. In such a case, we could not assign a probability to each number, but instead a probability density. And instead of summing over possible outcomes, we would have to dig out our Calculus books and brush up on integrals.



We don't want to go into that here, and I only mention it now because the matter of continuous numbers will come up later. The probability density for the impact point of the coin would be the familiar bell-shaped curve, also called a Normal or Gaussian probability density. Most types of errors are well described by that distribution.

Now, to discuss the second of Ed's questions, "What would I use random numbers for in my computer?" There are two main uses—simulation and strategy.

In simulation, you want to make your computer behave like something else, and some features of that something else may be random processes. In games this can often be obvious—in card games, for instance, you want to simulate drawing cards from a shuffled deck. Other games involve rolling dice or flipping coins.

In those cases, the random processes are usually obvious. In other cases you want to mimic the vicissitudes of nature—earthquakes shake your nuclear reactor, rain turns your battlefield into mud, wind gusts toss your flight simulator.

A game is less interesting if such things happen too predictably, and could be unrealistic unless their variability matched that of real world events (i.e., had the same probability distribution).

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I have seen one game, called UpTown, which involved dealing in the stock market. It was very unsatisfactory due to the fact that the swings in stock prices were completely unrealistic. A case of using the wrong distribution for random number selection!

I would briefly describe strategy as selecting one of a list of possible actions so as to obtain the best result. This can arise in competitive situations such as games or in simply dealing with changing circumstances. Often the best course of action is to vary the choice made in such a way as to avoid establishing a pattern. Choosing them randomly is the best way to do this. This is too big a subject to discuss further now. Better to save it for a bull session at a later time.

I should mention another use, not so easily classified. At a Club meeting a few months back in a demonstration on producing fractal images through transformations, I mentioned that the algorithm required that the transformation be chosen randomly. Many graphical effects require some use of random numbers.

The obvious question at this point is "How do I get random numbers?" Truly random numbers are very hard to produce, requiring much time and effort. One way to get some is to pick up a copy of a book, published by the Rand Corporation, entitled "One Million Random Numbers."

What we want, however, is some way to generate them in our computers. But if we use some determinate method, the numbers won't really be random, will they? They will be good enough for most purposes, but to be accurate we should call them "pseudo-random" numbers.

The most common method, called the Congruence Method, works this way: given three integers (a, b and T) and some integer, X(0) to start with—called the 'seed'—we form the sequence of numbers:

$$X(N+1) = a * X(N) + b \pmod T$$

where (mod T) means to divide a*X(N)+b by T and keep only the remainder.

This is all done in integer arithmetic, of course. The result will be a sequence of pseudo-random numbers, all less than T. After doing this T times, of course, the sequence will repeat itself, so one picks T to be much larger than the number of random numbers one expects to need.

It is obvious that these numbers are not truly random, since it is impossible to get the same number twice in a row, and with real random numbers there would be some slight chance of that happening.

Not all values of a, b, and T are good choices. however, and people have spent a lot of time finding values that do well on the tests for randomness.

For binary computers, T is usually picked to be a power of 2, so the division can be performed quickly by a simple right shift. And a is often one plus another power of 2, so the rest of the calculation requires only a left shift and two additions.

In this way, a random number generator is a natural for a hardware chip, where it will run very fast.

That is what Atari has done on the 8-bit's POKEY chip along with the sound generation. There, such a process is constantly in operation and an 8-bit random number is available in memory location 53770. One can access it (via Basic) by:

X = PEEK(53770)

and X will be a random integer between 0 and 255. If you need larger numbers, you can get them by:

X = 256 * PEEK(53770) + PEEK(53770)

This X will be random and uniform between 0 and 65535. Do the same thing one more time and you are now up over 16 million!

It is also handy to have continuous numbers in the range 0 <= X < 1, and you can get a pretty good approximation by:

X = (256 * PEEK(53770) + PEEK(53770))/65536

Not really continuous, but we can never get truly continuous numbers on a computer, can we?

Using Basic, this last step is really not necessary since it was included in the language, by:

X = RND(0)

This will be random and uniform over the (almost) continuous range 0 <= X < 1. This is very handy to have, for with it one can calculate random numbers over any range and for any probability distribution. Some examples:

X = INT(2 * RND(0))

This is the coin flip. Let 1 be heads and 0 be tails.

X = INT(6 * RND(0)) + 1

This is the simulation of a die. In general, to get integers, random and uniform over the range N1 to N2, inclusive:

X = INT((N2 - N1 + 1) * RND(0)) + N1

This works for negative numbers too, and is the method used in our raffle program.

And finally, one example of getting random numbers from a non-uniform distribution using RND(0). Let us say we want to choose X so that:

```
X = 1 with probability P1
    2  "         "       P2
    3  "         "       P3
```

where P1+P2+P3 = 1. (Only 3 choices possible.) Then, using the syntax of TURBO BASIC XL:

```
Y = RND(0)
IF Y < P1
   X = 1
ELSE
   IF Y < P1+P2
      X = 2
   ELSE
      X = 3
   ENDIF
ENDIF
```

X, as chosen, will be random with the desired probabilities.

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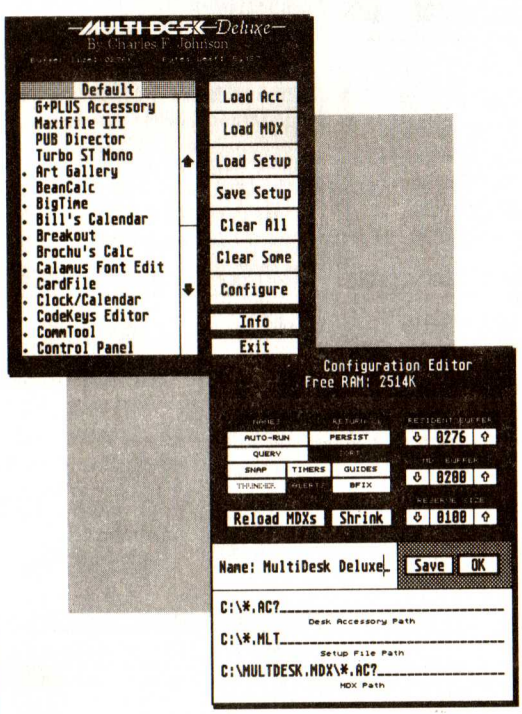

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When you open up the Mac box, by removing packing tape and then staples, the first thing you see is a "Welcome to Your Macintosh" type pamphlet that introduces the buyer to the computer.

The computer is packed in white Styrofoam, which matches the box, and all the literature is done in white as well. A white box labeled "cables" or something to that effect tells the user something important is in another smaller box.

What we have here is the impression that whoever designed the big box worked with the people who designed the packing, who worked with the people who designed the instructions. A proud computer. This gives the new owner a subliminal idea that this company has its act together, whether it does or not.

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Underneath the computer is the instruction booklet. No "Welcome to Atari," no "Thanks for buying this computer." Just instructions and a warranty. Another unlabeled cardboard box contained the cables and such.

I will grant that the foam is very good for shipping, and my computer was unblemished. However, the entire packaging looked like it was done by committee. Box, foam, plastic and instructions looked like completely different people did them. A proud computer company? The packaging didn't imply this at all. A confused computer company? Well, you be the judge.

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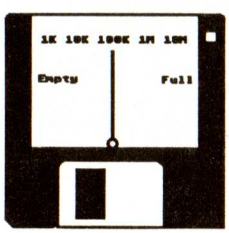

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Boxes

Tim Holt

Sometimes I wonder whether or not some companies actually have any idea what goes on in the real world, or whether they just listen to some off-the-wall Gallup poll to get the "pulse" of the situation.

Think of all the corporate blunders you have heard of over the years: New Coke. Does anybody drink that stuff?

Several years ago, Chevrolet introduced the Nova automobile in Mexico and could not understand why the heck it didn't sell. Turns out that "No va" in Spanish means "Does not go." Nice car, bad name.

When Pepsi introduced its slogan "Pepsi: The Choice of a New Generation" in China, it was translated into "Pepsi: It will Bring Back to Life Your Dead Relatives." Good drink; bad slogan.

The most recent example of this type of corporate blunder happened right here in El Paso. We have a grocery store by the name of Skaggs. When they decided to change their name to "Jewel Osco," no one asked what osco meant in Spanish, which is what most people in El Paso speak. Seems that osco, or the pronunciation of that, means "nauseated feeling." Great name for a supermarket, eh!

So, what the heck does all this have to do with computers? Well, I was thinking about corporate blunders when I was trying to decide what computer to buy. Seems my faithful workhorse 1040 ST decided it was time to go to computer heaven, and I needed a new one. What to get...what to get?

Well, to make a long story short, I ended up with a Mega STe/4, which I am quite happy with and which runs my Spectre GCR just fine thank you. So, this article will *not* be a "why I switched computers even though I love Atari" type of article. This article has to do with boxes.

My new Atari came in a box. No surprise there.

Since I work in a school, however, I get to see all the neat new stuff that comes down the pike for education, and all the boxes it comes in. My school recently was sent two new Macintosh LC computers, so I got a chance to compare my Atari box to the Mac boxes.

Now I know this seems really trivial, but first impressions mean a lot to some people. The first impression that most people get from their computer is the box that it comes in.

Here is the tale of two boxes....

Apple sends all of its computers in thick, and I mean thick, cardboard boxes that a student of mine that weighs 100 pounds could easily stand on without crushing it. (I tested this theory and it worked.)

Outside, the color Apple logo and a reproduced picture of the computer adorn all sides of the box. Also, there is a plastic packet that invites the new owner to update to System 7. Clean, crisp, bright. This box said "You are the owner of a proud computer."

Atari sent my new computer in a medium weight cardboard box that was stamped "Taiwan" on the side, "Port of Los Angeles" on the other side, was crushed on one side and had a tear about eight inches long. It looked like Edward Scissorhands was the longshoreman who unloaded the computer off the boat.

The box's color was the color of a paper sack. The picture of the Mega/STe4 (the finest home computer on the market today, as all of those at Atari will tell you) looked like a line drawing done for a clip art publication. It wasn't even a picture of the computer. This box did nothing to inspire confidence on the part of the owner. Is this a proud computer from a proud company? One could not tell from the box.

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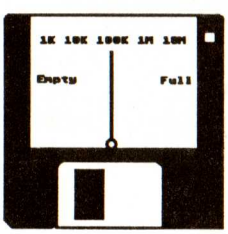

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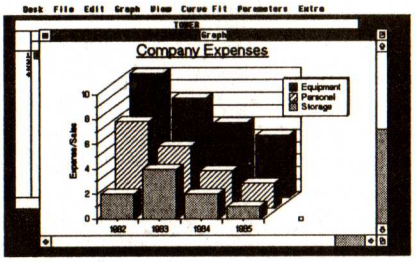
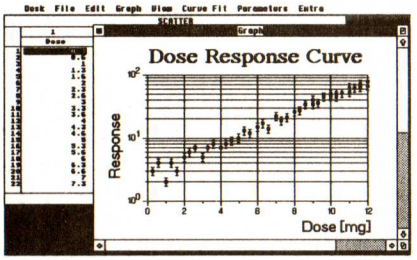
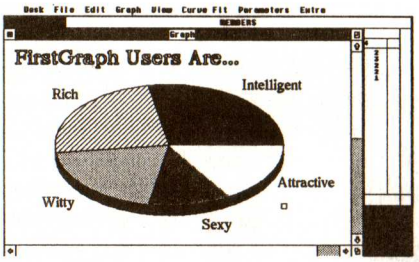
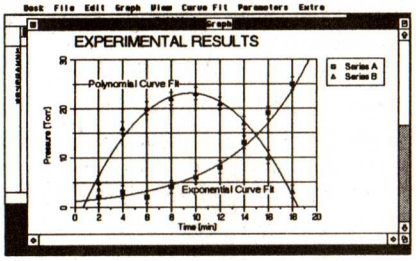
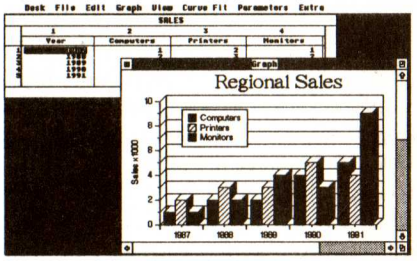
FIRSTGRAPH

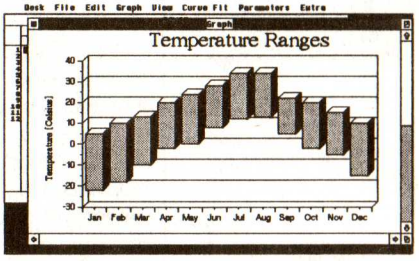












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3-D MODELER FOR 8-BIT ATARI!

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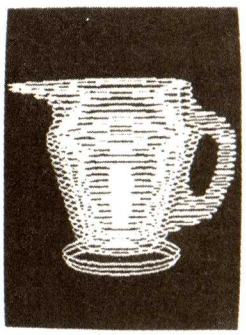
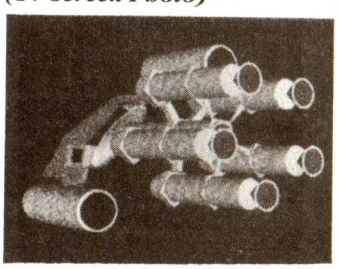
Two new programs!

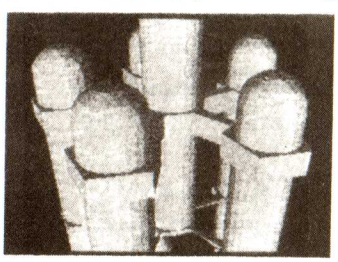


Pitcher, rendered by MODEL BUILDER (TV Screen Photo)

Same Pitcher ,rendered by SURFACE SHADER (TV Screen Photo)



Space ship, 5 cluster rockets (TV Screen Photo)



Close up of cluster rockets from the top (TV Screen Photo)

ChromaCAD™ 3-D MODEL BUILDER 91 program

With the ChromaCAD™ MODEL BUILDER program, you can build any 3-D model you can dream of. You merely start at the bottom and draw the contour lines of the model as you work your way up. Add surface colors to the model as you draw the lines. *You* decide how many contour lines to use for each model (up to 158) and *you* decide the elevation of each line. Huge scrolling 32767 x 32767 graph allows you to construct contour lines *as detailed as you want.* Supports computer-assisted drawing of lines, circles, arcs, ellipses. Displays models in contour-line form.

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ChromaCAD™ SURFACE SHADER XE 91 program

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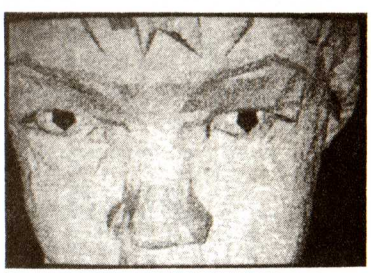
Up to ten models can be individually oriented in 3-D space and displayed together to produce one compound multi-model scene. (Terrain model, Airport model, airplanes, cars etc. combined to produce one scene.) The program also supports negative, mirror, and stepped-tone rendering, automatic clipping, highlighting, ambient lighting, and inside viewing of models. We know that all of this is hard to believe so, with purchase of the SURFACE SHADER XE, *we include the bust model (shown to the right) free of charge.* You, yourself, can view the model from any angle, in any mode, using any lighting or rendering option you want.

View any model in 3-D Stereo! (With included 3D stereo glasses.) Watch models virtually jump off the screen.

Photo of actual bust of human head

3-D model rendering (TV Screen Photo)

3-D Model Rendering (TV Screen Photo)



3-D Model Rendering (TV Screen Photo)

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Ellen Lentz (ACCT)

TextPro+ version 4.5 is a professional word processor for the Atari 8-bit computer, requiring 48K memory.

It is a Shareware program distributed by Ronnie Riche and is available on many BBSes, including CompuServe and GEnie, or from a registered user. Mr. Richie will send you a distribution disk for $15 or enroll you as a registered user for $40. Instructions for becoming a registered user are in the documentation.

TextPro+ is very easy to use. It is a binary load file (TP45.OBJ) and is loaded with the "L" option from DOS or at bootup by renaming it AUTORUN.SYS.

After the title screen, you will be placed in the text editor, where you can start typing in text or load a previous file. If no file is loaded, the file name "NAME.ME" will appear. Additional files can be loaded at the position of the cursor, but they do not merge—they will wipe out the following text.

TextPro+ gives you the ability to scroll by character, word, sentence or paragraph, as well as to the beginning or end of a line, or to the beginning or end of your text, as indicated on the Quick-Reference Sheet.

You can delete by character, word, sentence, paragraph or string. The deleted text can be stored in the buffer or added to the buffer. The size of the buffer can be manipulated (see Section 1.3.1 of the manual). The default is "8" for a 2K buffer. The larger the buffer, the less room you have for text entry. Using Atari DOS 2.5, there is 18.5K available for text. Text Editing commands are listed in Section 2 of the manual.

All of the Print Formatting Commands are sent before the first line of text except for Centering, Right Justify and Z-Margin, which are designed to work on one line of text. They are inserted via lower case letters entered with the SELECT key. There must be a space between the command and the beginning of the text.

If you change the globat format commands during editing and wish to restore them to the original defaults, press CTRL-J. Print Formatting Commands are in Section 7 of the manual.

TextPro+ loads in REPLACE mode, but you can toggle between INSERT and REPLACE mode with CTRL-I. Since Insert mode requires movement of all the text down, it is sometimes quicker to work in Replace mode, especially if you're at the beginning of a long file.

To allow insertion of characters, SHIFT-INSERT inserts 255 spaces at the position of the cursor, and SHIFT-DELETE deletes the unused spaces. If you don't need that many spaces you can use CTRL-TAB to insert the number of spaces that you define by using SHIFT-TAB. (Default is 5 characters.)

Documentation for TextPro+ is quite extensive. It is formatted for the TextPro+ program and can be printed by loading each section (TPDOC.A01 to TPDOC .A12) into the editor with a CTRL-L and printing it with CTRL-P. Loading a file with the cursor at the home position will erase the existing file.

TextPro+ supports many different DOSes and is unique in that it will allow you to exit to DOS.

The Table of Contents for the documentation is in TPDOC.TOC. There are also three READ.ME files which can be printed.

The Quick-Reference sheet accompanying this article contains most of the basic commands, but for a better understanding as to how to use them and for those not listed, you should read the documentation. The complete list of keyboard commands is in Section 12 of the manual.

There is no global format as such, but any .CNF (Configuration File) contains the global formatting commands.

A file titled TEXTPRO.CNF will automatically load at start-up time if it is present on your disk. You can then load additional .CNF files by pressing SELECT-CTRL-L in the text mode. Thus, you can have different global formats for different uses, such as letters, labels, documentation, etc. The preset values are:

<l> - Left Margin = 5
<y> - Z margin = 5
<r> - Right Margin = 75
<p> - Page Length = 66
<t> - Top Margin = 5
<b> - Bottom Margin = 58
<s> - Line Spacing = 1
<x> - Line Width = 80

To create a TEXTPRO.CNF file, hold down the SELECT key during program start-up. A prompt "Dec.# <l>" will appear, where <l> will be the inverse letter l for Left Margin. If you wish to change it, type in the new left margin (such as 10) and hit return. If you don't wish to change it, just hit return. The cursor will then move right and the

next letter will appear. Continue typing in your decimal values until you have entered them all. Caution: Bottom Margin should be the line at which the margin starts. There should be room in the top and bottom margins for any headers or footers.

You will then go to the editor, where you can save the file. Press SELECT-CTRL-S and type in TEXTPRO.CNF on the command line. This global format will be saved and will then load at startup time. You can create other .CNF files for different purposes by going through the same procedure and giving them a different filename such as LABELS.CNF or DOC.CNF. Load them as needed by pressing SELECT-CTRL-L.

Since the global formatting commands are not in your text, you can use TextPro+ to create an ASCII file (no inverse characters) which will import directly into such programs as Daisy Dot III.

To customize your .CNF files for your particular printer, you use the SELECT key with an upper-case letter followed by an "=" sign and the decimal value. You do this in the text mode.

For example, if the decimal values for underlining on your printer are Start Printing = 27,45,49 and Stop Printing = 27,45,48, you can set up <U>=45 <X>=49 <Y>=48. (The 27 is the value for the Escape key which you can generate by hitting the Escape key twice, so you don't have to set it up.) Follow this by pressing CTRL-W.

The <U>, <X>, and <Y> keys are now defined for your print session. If you wish to save it to a .CNF file, press SELECT-CTRL-S and give the name TEXTPRO .CNF (or whichever file you are customizing). To use it in your text, you would then type Esc (hit the Esc key twice) <U><X> to start underlining your text, and Esc<U><Y> to stop the underlining.

Similar keys can be set up for Bold printing, Italics, Double-Wide, Pica, Elite, Condensed, etc. Any command prior to the CTRL-W will be saved. Since you will only be setting these up once for each printer, you can do them before typing your text. After saving them to a .CNF file, you can clear text with a SELECT-CTRL-U (Delete to top of file) or SELECT-CTRL-V (Delete to bottom of file), and you will be all set to type in your text. Sections 1, 8 and 9 of the manual give detailed instructions for full configuration of TextPro+.

The file TEXTPRO.FNT is any Graphics 0 font and will be used in the Editor. If present, it will load automatically at start-up. If you want the regular Atari font, rename this file ROMAN2.FNT. For any other font, rename this font and rename the other font to TEXTPRO.FNT.

CTRL-M brings up a Disk Menu which allows you to process your files, such as Load, Rename, Delete, Format, View, etc. It works on the highlighted file. If the arrow keys do not work to choose a file, try deleting the DOS.SYS and DUP.SYS on your TextPro+ disk and writing Atari DOS files to it. It will work properly with any DOS 2.0 or 2.5 compatible DOS. A return or escape key will return you to the text. Instructions for this are in Section 6. See Section 10 of the manual for additional features supported for SpartaDOS and MyDOS and an explanation of support for the full range of DOS packages.

You can create a directory listing in the editor by using CTRL-L (load). Enter a mask of "*.*,D" followed by a return, and the directory of Drive 1 will be loaded to the editor. You can specify which files you want listed in the mask (such as "*.DOC") and whichever drive number you want. Go to the end of the file and do the same for another disk. The new directory will append to the file. You can track your disks easily by typing a short description of the disk and operating instructions (i.e., "must use BASIC") at the top of each listing. You can then use the FIND feature to quickly locate files you want, using TextPro+ as a competent disk library program. Detailed instructions for this feature are in Section 5.4.1 of the manual.

For further information, contact Ron Riche, 1700 Aylock St., Arabi, LA 70032.

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QUICK REFERENCE FOR TextPro+ Version 4.5

```
<> = SELECT KEY
 ^ = CONTROL KEY
SH = SHIFT KEY
 & = ESCAPE KEY
 () = DEFAULT
```

File Commands:

^<>L	Load Configuration File
^<>S	Save Configuration File
^L	Load File
^M	Disk Menu
^P	Print to Device
^S	Save File
^V	Load Macro File
^W	Sets Up Defined Print Keys

Editing Commands:

<>b	Bottom Margin (58)
<>c	Center Text
<>d	Down # Lines
<>e	Right Justify
<>f	Define Footer
<>g	Go To Linked File
<>h	Define Header
<>i	Information Line
<>j	Turn Linefeed On (Off)
<>l	Left Margin (5)
<>m	Margin Release
<>n	Next Page
<>o	Overstrike (95="_")
<>p	Page Length (66)
<>q	Justify 0=Y, 1=N (0)
<>r	Right Margin (75)
<>s	Line Spacing (1)
<>t	Top Margin (5)
<>u	Underline Toggle
<>w	Page Wait (Off)
<>x	Columns Across (80)
<>y	Z-Margin Setting (5)
<>z	Print Offset
<>@	Starting Page No. (1)
<>#	Print Page No. (1)
<>?	Start Printing at # (1)
<>&	Stop Printing at #
^+	Character Left
^*	Character Right
^-	Character Up
^=	Character Down
^,	Sentence Left
^.	Sentence Right
SH+	Word Left
SH*	Word Right
SH-	Paragraph Up
SH=	Paragraph Down
SH/INSRT	Insert 255 Spaces
SH/DEL	Delete Unused Spaces
SH/TAB	Set Tab (5)
^ TAB	Push Tab Spaces
^A	Upper/Lowercase Swap
^<>C	Select Change String
^C	Change String
^<>D	Delete & Add to Buffer
^D	Delete to Paste Buffer
^E	End of Text
^<>F	Select Find String
^F	Find String
^G	Global Search & Replace
^H	Home Cursor
^K	Kill Buffer
^Q	Beginning of Line

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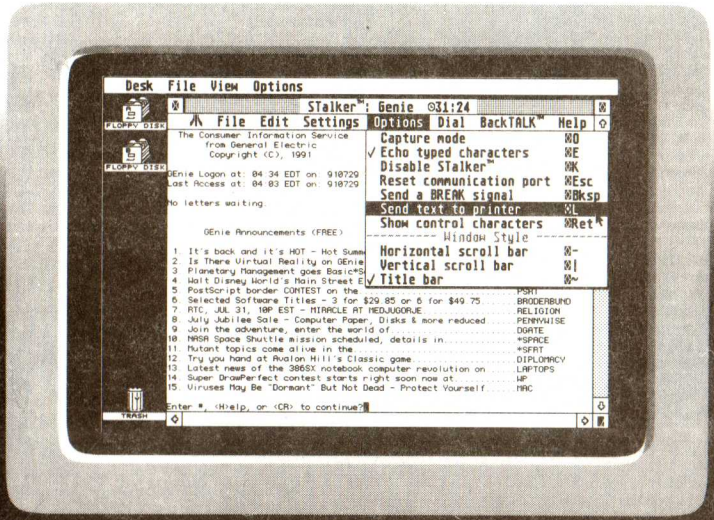

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#514 - Monochrome Emulator V3.0 - Run Mono programs on Color monitors
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#938 - NeoDesk Icons, Recoverable Trashcan V1.2
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#940/941 - **LaserBrain V1.31** - Epson Emulator for Atari SLM804 Laser Printer. (Mono Only/DBL)
Additional Fonts on #1001-1003
#950 - **24 Pin Printer Emulator** - Written for printers without a letter quality mode.
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#951 - DC Show It V1.1, Head Start V1.1, Little Green Item Selector V1.6C
#952 - Address Labeler V2.0 - Create, Print and Store address labels
#988 - Fast Copy III, NX-1000 Set Up
H.P. Deskjet Print Utility V1.4
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#1175/1176/1177 - Programming in Assembly (DBL)
#1209 - German to English translator, STE Fix
#1214 - GFA Basic Programs/Files
#1253 - Diamond Back II V2.25 Demo
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#895 - PageStream V1.8 Demo (DBL)
#935 - *Desktop Publishing Utilities*
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#870 - Atari, Baby Teeth, Lucida, Old English
#1044 - Adverse, Barnum, Burlington, Oblique, Caligraphy 2, Celtic, Chancery, Chicago, Dingbat, Flash, Harloe, Olympia, Souvenir Medium, Souvenir Medium Italic
#1094 - Architect, Avant Guard, Bookman, Broadway, Chancery, Dingbat, Kibo, Oakville, Palatino, Western
#1336 - PageStream V2.1: Roosth, Saintf, Sansser, Sharkt, Style, Toulouse, Windsor, Zalesk

Calamus Fonts

#1150 - Architect, Broadway Engraved, Counter Point, Fancy Chancery, Swiss Medium
#1153 - Lucifer, Bodoni, Bodoni Italic, Drurylane, Drurylane Italic, Hallbats
#1179 - Complete Glib font from FontAbility
#1190 - Micron, Tiempo, Swiss Medium, Leecaps, Medici, Windzor, Zalescap
#1223 - Chicago, Cornet, Cursive, Gaudy Cond, Gallia, Gillies, Goudy, Legend, Old English
#1329 - Chili Pepper, Diane, Diego1, Fifties, Mini 6, Galledis, Moscow Regular, Premier Light
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#965 - Checkbook V1.09, Almanac (Color)
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#115 - Labeling Program (Disk/Mail/VCR)
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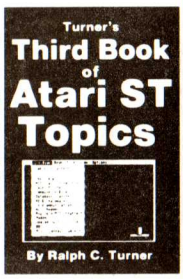

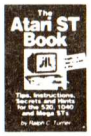

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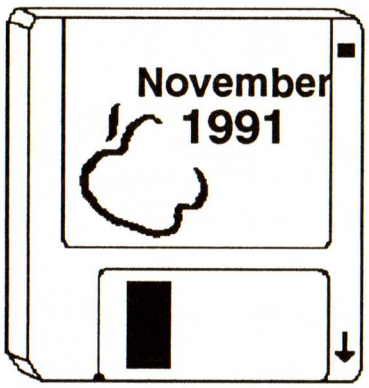

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Labyrinth—Maze game in which you roll a marble through the maze and try to avoid the holes.

Register—A full-feature check book/account manager as a Desk Accessory. Only 23K with resources. Written in Assembly. Supports ASCII printers, prints checks and reports. Shareware.

Rhine—Test your ESP. This works just like the cards used by professoinal parapsychologists. Supports color for color Macs (also B&W) and is FREE.

SerialPrint II—A DA that prints TEXT files on printers connected to a serial port. Uses built-in printer fonts, for faster printing than with standard drivers. Supports Apple ImageWriter I and II, Epson FX and LQ, IBM Proprinter and HP DeskJet printers.

SpoydWorks Solitaire—SpoydWorks Solitaire 1.2.1 is Steve Boyd's Shareware collection of six solitaire variations: Easthaven, Klondike, Spiderette, Westcliff, Will o' the Wisp and Yukon. Distributed by GAMER Project.

Readers can purchase this disk by sending $6 ($5+$1 s/h) to Unicorn Publications, 3487 Braeburn Circle, Ann Arbor,MI 48108. Please specify the November '91 Mac/Spectre Disk when ordering.

We also have a special November Games Disk available. This disk contains recent PD and Shareware releases for the Mac. Here's a short description of these games.

Ashes+—Ashes+ is a clone of the arcade hit Missile Command, complete with rockets, lasers and particle beams.

Brickles Plus 2.0—BricklesPlus 2.0 is Ken Winograd's Shareware version of Breakout. You select 1, 2 or 4 paddles/sides, ball size, paddle size, etc. Distributed by GAMER Project.

Glypha—Glypha 2.0 is a clone of the popular Joust arcade game, with an Egyptian twist. Joust against Sphinxes on your "winged steed," pick up the eggs and avoid the mummy's grasp, the lava pit and the Evil Eye! Shareware, written by John Calhoun and distibuted by GAMER Project.

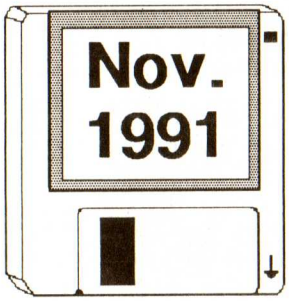
MacTris 1.1—Standard Tetris clone from TVark Productions. Align the falling pieces to fill horizontal rows. The more rows you clear, the more points you get. Shareware.

RiverBoat Poker—RiverBoat(tm) Poker has features for the novice and professional. It may be used for entertainment, as practice for real poker play, or as a tool for studying poker dynamics.

Trek 1.2—Nice version of the classic Star Trek game. As the built-in help says, "See Klingon. Kill Klingon. Watch Klingon die." Shareware.

Wolves—Wolves in the Woods is a teaser for Bill Appleton's soon to be released arcade game, Frankie's Dungeon. Excellent action and sound. Square off against classic movie monsters.

Readers can purchase this disk for $6 ($5+$1 s/h). Please specify the November '91 Mac/Spectre Games Disk when ordering.



AIM ST Disk of the Month

All files on this disk are self-extracting LZH archives created with Double Click's Self-Extracting ARC program DC SEA! To use these programs, simply double click the files. Then, click on Extract and select the drive/folder to which you want the extracted files saved. Click on Verbose to get a list of the files in each archive or Exit to abort.

Here's a short description of the files on the November '91 disk. For more complete docs, see the text files contained in most of these archives.

ARCSHL26.APP—ARCShell version 2.6, with full support for the newest LZH archivers that now handle arcing of subdirectories. Shareware from Charles F. Johnson and Little Green Footballs Software.

AUTOZEST.APP—Auto ZeST creates NeXT look-a-like front ends for your own GFA programs! Simply 'draw' your own custom graphic user interface in this CAD type program and Auto ZeST will save GFA code to disk. Create 3D push buttons, sliders, lines, carved text, info boxes, windows, platforms and more! Mono ONLY. Freeware.

AVDEMO.APP—Demo of Avant Vector imported by CodeHead Software. Avant Vector is an autotracing and vector graphics application. This demo works best in ST high (monochrome), TT medium or TT high resolutions.

BOING.APP—Use the bouncing ball to collect the fruit in this color, low resolution game. Difficult to master and hard to stop playing.

CHANGEHZ.APP—If you've ever encountered an import program that wants to run at 50Hz instead of the US standard of 60Hz, here's a little program to solve your problems. CHANGEHZ.PRG toggles your display between 50Hz and 60Hz.

CHKMIDI.APP—Test your MIDI cables quickly and easily! Just plug one end into the MIDI out port, the other into the MIDI in port, and click on Test. You'll know instantly if the cable is good or bad!

CLOCK.APP—A nice little analog clock desk accessory with C source code. Written by John Jainshigg of Atari Explorer.

DCREZRUN.APP—A neat little program from those Double Click guys. DC Rez Run automatically switches resolution for programs that only run in a specific rez. No more "Please Switch to xxx Resolution" messages!

DEMOMAKR.APP—Demo Maker: Create your own demos and add pictures, sound and music. Easy to use language and instructions. Requires one meg and a color monitor.

GAMES.APP—Two games written by Erin Monaco. EUCRE is the popular Eucre card game. You and a computer teammate take on two computer players. A great game. 5OFAKIND is a Yatzee variation that is also excellent and very easy to play, with a one or two player option. Both games are COLOR only.

ICONEDIT.APP—Demo of the NewDesk Icon Editor CPX from Software Development Systems. You must have XCONTROL.ACC (Atari's new extensible control panel) to use this CPX file, and the Icon Editor is primarily of interest to Mega STE and TT owners.

INFODISK.APP—A complete newsletter-on-a-disk environment shell. Allows newsletter editors to quickly and easily create a professional disk-based newsletter. Features include multi-format picture file support, fast read and multi-option display of text files, built-in help, and a GEM interface with an editor-definable menu structure. Shareware.

MDESKDLX.APP—A demo version of CodeHead Software's new MultiDesk Deluxe. This demo is fully functional, but will only run for ten minutes. MultiDesk Deluxe allows you virtually unlimited use of Desk Accessories without using up piles of system memory!

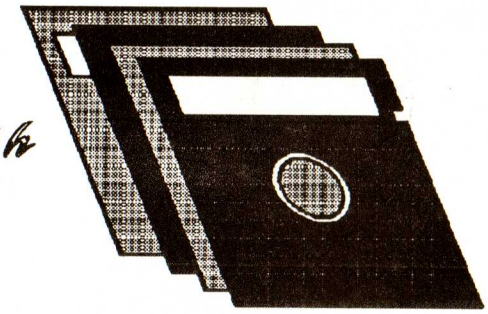
PRODUCEM.APP—Play a big time movie producer in this Michtron BBS game. MCL source code included, so you can add this online game to your own Michtron 3.0 BBS.

STUNARJ.APP—Here it is, an ATARI ST version of the new hot PC compression format: 'ARJ'. ARJ is the best of both worlds, compresses slightly more than LHA at PKZIP speed. This ST version is between 2 and 3 times faster than ARC 6.02 or LHARC 1.13 Extractor only.

WHATIS47.APP—Version 4.7 of Bill Aycock's popular WHATIS utility. Recognizes 86 different file types. Is that file you just downloaded an ARC, an LZH, a program or what? Don't keep guessing, use WHATIS.

Readers can purchase this disk from their local AIM Participating user group or by sending $6 ($5 + $1 S/H) to Unicorn Publications, 3487 Braeburn Circle, Ann Arbor, MI 48108. Please specify the November '91 ST disk when ordering

AIM 8-Bit Disk of the Month November 1991



Each AIM 8-bit Disk of the Month is a single-sided, single-density "flippy" packed with software. To extract files in the ARC format, you need the UNARC .COM utility (available from most BBSes, user groups or on the April/May '91 AIM 8-bit Disk).

The November '91 disk contains all the files necessary for the AtariLink BBS 2.0x. This is written in Atari BASIC and works best with SpartaDOS, but also works with Atari DOS 2 and others.

The BBS supports RAMdisks, MIO interfaces, hard drives and 2400 baud. External "Door" programs are also supported. Also supports lots of download protocols, including Ymodem Batch. All in all, this is a great BBS system.

Side 1

LINK20XP.ARC—The main archive containing Atari Link2.0x. This BBS was two years in the making and supports all Hayes compatible modems.

LNK20SDX.ARC—Startup file for running AtariLink with SpartaDOS X. Allows you to automatically go to BASIC and run the BEGIN program.

GWALL12.ARC—External Door program to add a Graffiti Wall.

Side 2

L20XADRS.ARC—Autodoor programs for AtariLink, including automatic validator, Email cleanup, compactor, Thought for the Day and modem manipulation programs.

L20XDOC.ARC—Documentation for AtariLink 2.0x.

LINK20XW.ARC—Sample files for your AtariLink workdisk.

DOSPATCH.ARC—Patch to cure memory problems you may under DOS II with a high MEMLO. See section 6 of the LINK20X manual for details.

PTCHDATA. ARC—Use this patch if you need to add lots of your own commands. Readme file enclosed.

ESTEPTCH .ARC—This ARC includes patches and modifications from Atari Exchange of Louisville. Includes documentation and a "door" command allowing exit to DOS from within the BBS.

Readers can purchase this disk by sending $6 ($5 + $1S/H) to Unicorn Publications, 3487 Braeburn Circle, Ann Arbor,MI 48108. Please specify the November '91 8-bit disk when ordering.

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I wish to receive your Disk of the Month. I am an AIM subscriber.

☐ ST/Mega (12 double-sided disks) — $50
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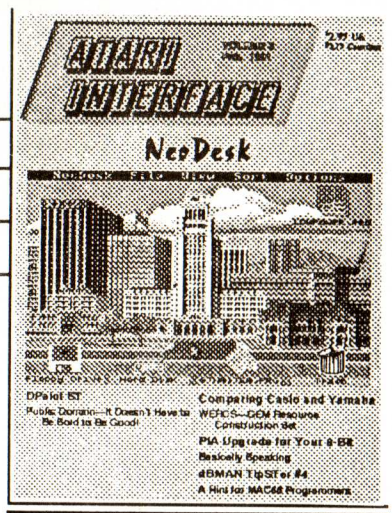
☐ Atari 8-bit (12 SS/SD "flippies") — $50



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AAAUA ATARI 8-BIT USER GROUP

Alamo Area Atari User Association (AAAUA), P.O. Box 79-1426, San Antonio, TX 78279-1426

The Alamo Area Atari User Association (AAAUA) is an Atari 8-bit user group serving primarily the greater San Antonio area. General Membership meetings are held on the first Tuesday of each month at the Balcones Heights Community Center, 107 Glenarm, San Antonio, from 6:30 to 9:30 PM. Each third meeting we have a swap meet and computer workshop in lieu of the informal presentation. AAAUA maintains a Library of about 700 disk titles. Each month we publish (FR)ANTIC covering happenings of local interest as well as other topics, both technical and non-technical. Members also receive a subscription to AIM as part of their member benefits. Dues for family membership are $24 per year or $15 for six months. Dues for Subscribing membership are $15 per year domestic and $18 per year for most foreign countries. For further information write AAAUA at the above address or call Al Sherrill, President, at (512) 492-6633, or Thelma Sunvison, Executive Assistant, at (512) 344-3522.

AACE

ALBUQUERQUE ATARI COMPUTER ENTHUSIASTS

President Richard M. Houser (505) 299-3977

General membership AACE members meet twice monthly, on the first Saturday and third Tuesday of each month. An 8bit meeting is held on the second Tuesday of each month. On the first Saturday of June and December, a Swap Meet is held. Dues are $20 a year payable in January. Members receive an AIM subscription, access to our 16bit and 8bit PD library and membership in the ASTRO BBS (505) 260-0448 Club membership is at an all-time high of 36.

AUSTIN ATARI COMPUTER ENTHUSIAST SIG — AACE

AACE, 305 Meadowcreek Dr., Round Rock, TX 78664

ACCT

ACCT meets on the second Monday of the month, from 7-9 pm at Bassett's Health Foods, 3301 W. Central Ave (Westgate Shopping Center), Toledo, OH. ST Sig held monthly at the home of David and Brenda Micka. Dates and times announced at meeting. ACCT may be contacted at 4487 289th, Toledo, OH 42611 or by calling Dave Micka at (419) 729-1891 or Michael Justice at (419) 242-7797.

President David Micka (419) 729-1891
Disk Drive-Thru BBS (419) 885-3441

the Atari Clubs of Denver

The Atari Clubs of Denver is an umbrella group consisting of: Atari Club of Denver, Starfleet User Group and the ST Interest Group. Atari Club of Denver meets the first Tuesday of each month. We meet at the Aurora Public Library 14949 E. Alameda Avenue in Aurora, Colorado. The meeting starts at 7:00 PM. Starfleet User Group meets the second Friday of each month. We meet at Pamona High School 8101 West Pamona Drive in Arvada, Colorado. The meeting starts at 7:00 PM.

Atari Club and Starfleet provide support for Atari 8-bit owners.

ST Interest Group meets the third Tuesday of each month. We meet at the Aurora Public Library 14949 E. Alameda Avenue in Aurora, Colorado. The meeting starts at 7PM. The ST Interest Group provides support for the entire ST computer line.

Our address is: Atari Clubs of Denver POBox 24064 Denver, CO 80224. For additional information call our BBS at (303) 343-2956, 24 hours, 300-2400 BPS.

ACCEPT

Atari Computer Club of El Paso, Texas

Membership to ACCEPT is $20 a year. A membership in ACCEPT will get you the magazine your holding for an entire year, discounts at Jenkins' Computers and on various ST publications. Technical help, and access to one of the largest PD libraries in the US are also thrown in for good measure. Special access to the STE-EP BBS, an ACCEPT members BBS is also a privilege of membership. Make checks payable to: ACCEPT, 245 Longhorn Crt, El Paso, TX 79907.

BBS support for ACCEPT: STEP El Paso: 915-755-STEP STEP BBS El Paso: 915-821-9220

ACCESS

Atari Computer Club

Encompassing Suburban Sacramento

Bob Drews (916) 423-1573 President

ACCESS — The Atari Computer Club Encompassing Suburban Sacramento. As usual, please call any officer if you need information, directions or even to make a suggestion. Or, you can call the ACCESS BBS at (916) 428-8662. Address: PO Box 1354, Sacramento, CA 95812

Our general meeting is at 7:30 PM on the first Wednesday of each month in Classroom B of the SMUD training building at 1708 59th St, between Folsom Blvd and R Street, just off Highway 50. This is our main get-together.

ATARI COMPUTER OWNERS RESOURCE NETWORK
FORT WAYNE, INDIANA

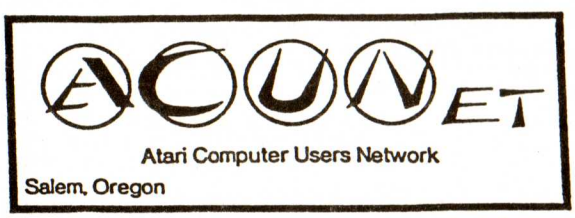
ACORN, the Fort Wayne area Atari users group, meets at the Georgetown branch of the Allen County Public Library on the first Saturday of each month beginning on at 10 AM. Annual membership dues are $18. Call our BBS at (219) 744-1396 for more information or write to us at ACORN c/o Ken Helms, 3627 Iowa Court, Fort Wayne, IN 46815.

The Atari Computer Owners of Rochester, NY (ACORN) meets on the 2nd Wednesday of each month at Brighton High School, 1150 Winton Road South. An ST Beginner's class starts at 6:45, while our 8-bit 'Basically Speaking' class starts at 7:00. Our general meeting starts at 7:30pm in room 262S, with a split into ST and 8-bit SIGs at 9pm.

We operate the Dimension's End BBS at (716)436-3078, 300/1200/2400 baud, 40 MB of online PD and shareware files. Membership in ACORN is not required to access the system.

Membership in ACORN is $18 per year, and entitles you to a year's subscription to both the ACORN Kernel newsletter and the Atari Interface Magazine, 12 meetings, access to our 8-bit and ST PD libraries at reduced cost, and special access to our BBS. Our mailing address is: PO Box 23676, Rochester, NY 14692-0676.

President Don Allis (716)293-3415

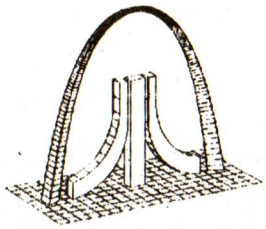


ACUNet is the Atari Computer Users Network in Salem, Oregon. Annual dues are $15 with an AIM subscription and $10 without. Our meetings are held the fourth Tuesday of the month at 7:00 p.m. Call Ron Purdy, ST Co-Chair at (503) 588-7509 for the current meeting location and other information.

Local BBS support includes the Atari SIG on the Salem Public Library BBS - (503) 588-6130, Page BBS - (503) 363-0171, and The Jungle BBS - (503) 393-4274. Want more information about ACUNet? Write to Ron Purdy, 2662 East Nob Hill Drive SE, Salem, OR 97302.

Regular meetings are held at the VAFB Federal Credit Union, Vandenberg Village, Califorina on the first Monday of every month at 7:00 P.M. Dues are $10 for individual or $15 for family membership. The Atari Federation maintains a PD software library for both 8-bit and ST computers.

President Phil Rominger



ACE of St. Louis, PO Box 3508, St. Louis, MO 63143, phone (314) 644-7168.

President Dick Pederson

Bay Area Atari Users Group, PO Box 4637, Santa Clara, CA 95054

BBS: (408) 986-0215

Robert Kaczanowski President

Vice President Todd Price (205) 787-8208

Club dues are $15 for regular and $25 for advanced. Advanced includes an AIM monthly disk, specify ST or 8bit. BACE meets the second Monday of every month at 7pm in the Vestavia Hills Public Library, downstairs.

For membership info, call Alan Brewster, or the Matrix BBS Conference #7 (205) 323-2016, or 251-2344, and leave a message.

B.R.A.C.E. (Bluegrass Region Atari Computer Enthusiasts) meets the third Tuesday of each month from 7:00 P.M. - 9:00 P.M. in Conferrence Room B (located on the 4th floor), of the downtown branch of the Lexington Free Public Library. The current membership dues are $15.00 per year for an individual membership, $20.00 per year for a family membership, and $10.00 per year for an associate membership (an associate membership includes receiveing the monthly newsletter (AIM), but excludes the use of the library).

President Hal Nason (606)269-8989

General Membership Meetings are held on the third Thursday of the month at Erie Community College North Campus, Room S-105 in the Student Center. Setup begins at 7:00 PM; Meeting starts 7:30 PM. The Board of Directors meet on the the first Tuesday of the month at the Your Host Restaurant, Harlem at Sheridan at 7:30 PM. All are welcome to attend. Piracy will not be tolerated at any BRAG ST function.

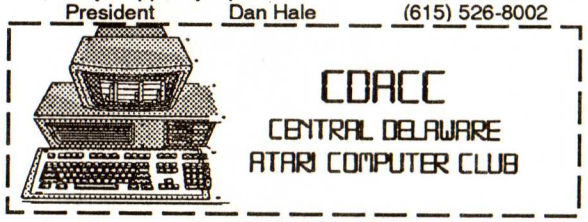
BRAG ST, PO Box 1035, Buffalo, New York, 14225

Chairman Mark Pierro (716) 691-7844

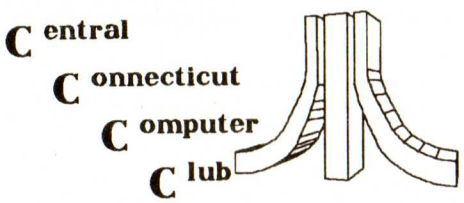
Backscater BBS, Access Code: BOAST (716) 646-1114

Cookeville Atari Computer Enthusiasts—c/o Robert Pecora—280 Capshaw Drive—Cookeville, TN 38501—Cookeville A.C.E. meets on the first Saturday of the month at 1:00 p.m. at the Putnam County Library in Cookeville, Tennessee.—Cookeville A.C.E. caters to Atari ST and 8-bit computers and is supported locally by The Generic BBS, Terry Rapp - Sysop.—C.A.C.E.

President Dan Hale (615) 526-8002



Sec/Treas Tom Baldwin 302-678-9411



Meetings of the CCCC are on the third Wednesday of each month. The meets kick off at 7:30 and usually include presentations or demos of various hardware or software items. The meetings are held at 127 Pinnacle Rd., Bristol, Ct. 06010

Prospective members may call Rich Scheidel (203)589-3738 or call Gary Jones (203)225-4611, or write, CCCC, 127 Pinnacle Rd., Bristol,Ct. 06010.

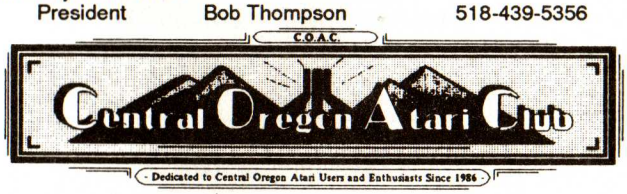
Dues are $25 per year,$30 for families. Includes Voting membership, Atari Interface magazine, access to Club library (8-bit and ST) and access to the Club magazine library.

The Capital District Atari Computer Enthusiasts was founded in 1981, is located in Albany, N.Y. and serves Albany, Schenectady, Rensselaer, Saratoga and surrounding counties in upstate New York. XL/XE meetings are currently held four times a year on a quarterly basis and ST meetings on the last Wednesday of the month. CDACE meetings are held at the Computer Cellar, located in Westgate Plaza, Albany, N.Y.

The club has extensive public domain libraries for both computers which are available to members beginning at 6:30 PM on meeting nights. ST disks are priced at $2 while the XE library continues to remain free to all members.

Dues are currently $20 per year for each family. This includes a subscription to AIM magazine, full access to the club BBS, and our monthly newsletter.

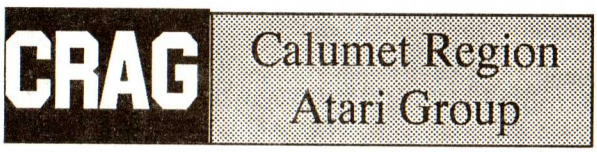
President Bob Thompson 518-439-5356



President Bob Stiles (503)389-5206

Address: P.O. BOX 6824, BEND, OR 97708

Our membership dues are $20/Yr for new members, $17/Yr for renewals. $1/Yr for each additional family member. We meet the FIRST SATURDAY of the month at 5:00 PM at the Ann Rita Conference Center, which lies just in front of the St. Charles Hospital on Neff Rd.



CRAG—Calumet Region Atari Group, PO Box 10995 Merrillville, IN 46411, is a club for users of the Atari ST, STE, and Mega ST computers. CRAG meets on the second Wednesday of every month at Broadway Music, which is located in Greentree Plaza, at 1509 W 81st (US 30), Merrillville, IN. Meetings begin at 7PM.

Membership in GRAG is open to anyone. Dues are $15 a year and entitle you to a subscription to Atari Interface magazine, as well as discounted prices on CRAG's Public Domain/Shareware library disks. Library disks are double sided. Cost per dis is $2.50 for members, $4 for non-members. For more information call:

Jeff Coe (219) 663-5117

The Champaign-Urbana ST Users Group (CUSTUG) meets at 7pm on the second Wednesday of each month in the Auditorium of the Urbana Free Library at the corner of Elm and Race in Urbana, IL. Membership dues include a subscription to AIM and GLITCH and use of the commercial lending library. New members are welcome. The group supports a local BBS, Blackhawk's Keep, operating 24 hours a day at 3/12/2400 baud (1/8/N): 217-892-5512.

Henry Murphy President

CUSTUG PO BOX 3442 Champaign, IL 61826-3442

The Cuyahoga Valley Atari Computer Club (C.V.A.C.C.), P.O. Box 9173, Akron, OH 44305-0173

Dues are $20.00 per year and will entitle members to all club benefits and activities. Each membership includes our monthly newsletter, The Password, as well as a subscription to Atari Interface Magazine. Members also receive a membership card which, when displayed at participating local computer stores, will entitle its bearer to discounted prices.

Meetings are held on the second and fourth Tuesdays of each month at 7:30pm in the basement of the First National Bank in Mogadore, Ohio.

President Don Crano (216) 376-7618

The Eastside Atari User Group, (EAUG), meets on the first Monday of every month, 7PM, at the Alton Square Mall Community Room, in Alton Il. All meetings are open to the public. No club dues. PD library, club newsletter EAUG-Log, newsletter membership $18 per year. Member of the Midwest Atari Regional Council, MARC.

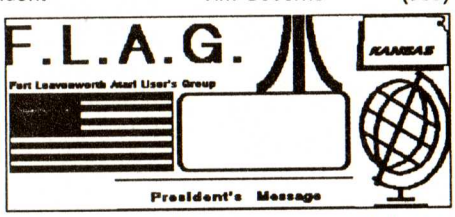
Eastside BBS 618-254-6077 and Garage BBS 618-344-8466. EAUG's address is 2425 Crislisa Dr, Alton, Il. Call 618-465-0342 for EAUG information.

FACCS

We hold our meetings the second Thursday of each month, at Eager Beaver Computers, located next to the Garland Theater. Meetings start 7PM. All visitors are welcome, so come check us out.

With the $15 per year family membership, you will receive our club's newsletter (AIM) as well as access to our PD library. Since we currently have renewal dates scattered throughout the year, please check your card for your expiration date. To prevent any interruption in services please renew by the expiration date on your card. For more information contact any of the officers or write to FACCS, PO Box 5121, Spokane, Wa. 99205

President Tim Osborne (509) 624-1917



President Jeff Yoe (913) 682-2883

FRACUS
Fresno Regional Atari Computer User Support

President Tom Hancock (209) 885-2817

The FRACUS user group meets the last Saturday each month, at 6PM, at the Four Seasons Moble Home Park Rec. room in Fresno, CA. We have a large public domain library with over 400 programs. The club also has a 24hour BBS. All 8bit Atari users are welcome to our meetings and to use our BBS (members have an additional sig on the BBS). Dues are currently $20 annually or $5 quarterly which includes a subscription to AIM and issues of our periodically published newsletter.

GRASS meets the first Wednesday of every month at the Wyoming Public Library, 3350 Michael S.W.. Doors open at 6:30, meeting starts at 7:00pm. Dues are $22.00/yr. including AIM. Bring in one PD software disk and get 2 blank disks for your time.

Tim Feenstra President (616)249-9742

G.T.A.U.G.
The Newsletter of the Golden Triangle Atarian

Meetings are held the first Tuesday of each month at a location announced in the previous meeting.

At present our dues are $24 per year (Our year begins in September.) and is pro-rated at $2 per month for new members the first year. We support all facets of Atari computing from 8-bit to Spectre/Mac to IBM and MIDI.

President Carl Neblett (409)755-6535
BBS Number (409)722-6526

The Houston Atari Computer Enthusiasts meet on the fourth Wednesday of the month, 6:45pm at the Health Economics Corporation, 2400 West Loop South, in Houston, Texas. The club supports all Atari computers from the 400 to the Mega4.

Membership is $22 per year, and gives full access to our BBS (713) 458-9923, access to our disk, magazine and newsletter libraries, a subscription to AIM, and our local news journal UPDATE ATARI. There are also other benefits, such as store discounts, door prizes, workshops, telephone help when you have problems, and much more! For more information, please contact one of our officers or drop us a line!

HACE, P.O.Box 460212, Houston, TX 77056

President: Bill Kithas 713-855-0815

Jersey Atari Computer Society, P.O. Box 710, Clementon, NJ 08021 BBS: (609) 346-1224.

The regular JACS meeting is usually held on the third Tuesday of each month, at the Camden County Library from 7 to 9 PM. The regular monthly meeting includes topics of interest for users of all Atari 8-bit & 16/32-bit computers. Yearly membership dues (August, 1990 - July, 1991) are $24. As a JACS member, you'll receive a subscription to Between Bytes and AIM, and full access to our 24-hour bulletin board. Copies of AtariUser are available at the meetings.

JACS public domain disk libraries (for all Atari computers) includes over 200 disks. Send a stamped, self-addressed business size envelope to receive a copy of our current disk catalog - please specify 8-bit or ST!

Pres & BBS Sysop Mike Hopkins 783-1423

KAUG
Kent Atari User's Group

The Kent Atari Users Group meets on the fourth Tuesday of each month from September thru to May. Meetings are generally held at the North Maple Villiage Mall on #40 Highway just North of Chatham, Ontario.

Our club dues are $20 per year with the opportunity to subscribe to A.I.M. We support both the 8-Bit and ST which gives you access to both an 8-Bit library and an ST library. Disks are $4.00 (Canadian) for the ST and $3.00 for the 8-Bit. Non members, add $1.00 per disk extra.

You can reach us thru the KAUG BBS at (519) 351-3901 anytime, or phone Channel One (519) 351-0760, Monday thru Friday from 10:00am to 9:00pm and Saturdays 10:00am to 6:00pm.

Everyone is Welcome. "Bring a Friend"

Long Island Atari Users Group

Long Island Atari User Group, PO Box 92, Islip, NY 11751. For information, contact John Aalto at 516-589-6754 or call STar Scan BBS at 516-399-4252.

Layton ACE of Utah

The Layton Atari Computer Enthusiasts (L.A.C.E.) membership cost $20 per year. Privileges include the AIM Monthly Magazine, access to the 8-Bit and ST club libraries, monthly meetings, help and friendship. LACE, c/o Irwin Brooks, 3897 So. 2275 W., Roy, UT 84067-3515. The LACE Club Meets in the basement of the Clearfield Library second Wednesday/ month at 7 p.m.

Mike Mormando President (801)731-1516

M.A.C.E.

The Michigan Atari Computer Enthusiasts

Members of MACE receive, as part of their dues, Atari Interface Magazine. 8-Bit disks are $3 each, and ST disks are $4 each. If you purchase three (3) disks from either library you will receive a fourth disk of your choice at absolutely no cost. Non-Members may purchase disks at a slightly higher rate. Mail order is also available. For a catalog of current disks in our libraries, send $2 to: MACE, P.O. Box 2785, Southfield, MI 48037

MACE meetings are held on the Third Tuesday of each month at the Southfield Civic Center at 7:30pm. The Southfield Civic Center is located at 10 1/2 Mile and Evergreen Rd, one half mile south of the Evergreen exit on the new I-696. Meetings are in the small pavilion, room 115.

MID-OHIO ATARI USER GROUP

MAUG meetings have returned to A&B Computers, 1151 Park Avenue West, (West Park Shopping Center) Mansfield Ohio, from 7:00pm until 9:00pm, on the third saturday of each month (except July). If you are unsure on how to get there, call A&B at (419) 529-9999. If you have questions relating to MAUG, call Chuck Steinman at (419) 529-2478 (after 5pm).

ST and 8-bit downloads for MAUG members have returned to the DataQue Support board, so check them out! Included are the most recent AIM ST and 8-bit disks of the month, and other interesting files. Only MAUG members in good standing have access to these files, so make sure your have your dues paid! The DataQue support board runs 24 hours, 300-2400 Baud, and the number is (419) 529-5197. Make sure you indicate you are a MAUG member so that MAUG access will be granted.

Middle Georgia Atari Users Group

M.G.A.U.G.

The Middle GA Atari Users Group is the sole Atari Club in the Middle Georgia area. We are composed of 43 members of which approx. half are ST users. Club president Pete Miller can be reached by phone at 912-328-8758. The MGAUG address is 115 Feagin Mill Rd., Warner Robins, GA 31088. MGAUG meets the second Sunday of each month at 1 PM at the Warner Robins Library. Annual dues are $6 with the newsletter optional. Use of the club library is free to all paid members.

NASAC NORTHMONT Area Systems of ATARI Computers

Northmont Area Systems of Atari Computers, NASAc

Terry Browne President

Nashville Atari User's N.A.U.G. Group

Nashville Atari Users' Group P.O. Box 121752 Nashville, TN 37212. NAUG meets on the third Thursday of each month from 7PM to 10PM at the Cumberland Museum and Science Center. Membership dues are $24 per family for the entire year. With your membership you will receive our local newsletter, Atari News, a subscription to Atari Interface Magazine, access to the club's 8-bit & ST Public Domain/Shareware libraries, People joining during or after the month of July pay 1/2 the yearly rate. Visitors are welcome to all meetings.

President & Editor Walt Sullivan (615) 228-7353

The Nashville Exchange (615) 383-0727

O-ACEs

OACSIS covers BOTH 8-bit (including the 400/800, XL, XE, and XEGS series) AND 16-bit (ST series) Atari computers. We meet twice each month (except November and December) on the 2nd and LAST Wednesday each month. Doors open by 7:30 pm at La Vista Recreation Center, 8116 Parkview Blvd. (just off 84th Street, south of Food-4-Less and east of 84th at the light)

FIRST MEETING: (2nd Wednesday) Covers news, views, and decisions that ALL members might be interested in. FOCUS MEETING: (LAST Wednesday) Concentrated information on a single topic (such as word-processing, spreadsheets, music composition, desktop publishing, etc.) Call 592-5427, for more info on O-ACEs!

PAC

Portland Atari Club PO Box 1692, Beaverton, OR 97005

President David Hunt 286-6276

BBS ACE of America 285-4417

PORTS ATARI PACE COMPUTER ENTHUSIASTS

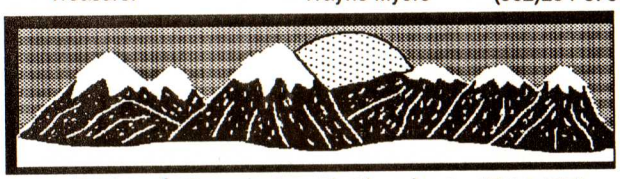
President Tracy Hendershot 525-1058

Membership to PACE is $30 ST and $20 8bit per year or $9 per quarter. Meetings are held at 6:30pm on the third Sunday of every month. Membership includes a monthly newsletter, FREE Disk-of-the-Month, FREE printer ribbon re-inking, and FREE copying priveleges to our VAST collection of 8/16 bit Public Domain programs. Any written correspondence should be addressed directly to Ports A.C.E., Tracy Hendershot, 4835 Crosley Avenue, Duluth, MN 55804.

PHAST - Phoenix Area ST

The PHAST monthly meetings are held on the second Saturday of every month at Devry College 2149 W. Dunlap Ave. Phx, Az. from 10 to 12pm in room #101.

Treasurer Wayne Myers (602)264-5737



P3Atari Computer Enthusiasts (P3ACE)

Serving the Colorado Springs, Colorado ATARI community since 1982. PO Box 17779, Colorado Springs, CO 80935

President: Rick Reaser, 380-8082

RJCC
ROCKFORD ATARI COMPUTER CLUB

Our regular business meeting is held from 9 to noon, the third Saturday of the month.

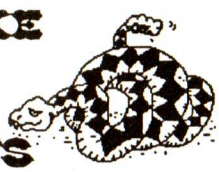
We have accepted the gracious hospitality, of the Springbrook Congregational Churches as an meeting place. It is located off Alpine, just as you make the turn onto Springbrook road, from Spring Creek road. Our mailing address is 3902 15th Avenue 1 - Rockford, IL 61108. Our phone number is [815] 397-5316.

Meetings are held on the fourth Saturday of each month, 2pm, at the Rapid City Public Library. Annual dues are $12 for basic membership and $15 for membership and newsletter (subscription to AIM!).

NO PIRACY WILL BE TOLERATED AT ANY RACE FUNCTION!

President Rick Burton (605)-642-5353

RATTLESNAKE ATARI COMPUTER ENTHUSIASTS



Rattlesnake Atari Computer Enthusiasts, PO Box 364, Frenchtown, MT59834. For more information, call Tom Tucker at (406) 626-4410. RACE meets the 3rd Sunday at Nat'l Guard Armory at 7PM.

R.A.C.E.

President Lewis Midyette 828-4319

S.A.G.E.
SPECTRUM ATARI GROUP of ERIE

SAGE, PO Box 10562, Erie, PA 16514-0562

The Spectrum Atari Group of Erie meets on the third Sunday of each month at 2 PM at St. John's Lutheran Church in Erie, PA. We also have SIG meetings monthly covering Telecomputing, the ST/Mega/TT computers and programming in GFA BASIC.

President Dennis McGuire 814-833-4724

ST Atari League of San Antonio (SALSA), P.O. Box 18731, San Antonio, TX 78218. SALSA is a users group for 16 bit Atari users. Meetings are held on the second Tuesday of each month at the Balcones Heights Community Center, 107 Glenarm, San Antonio, TX, from 7 to 10PM. Membership dues are $20 per year and members receive AIM as well as the option of recieving the clubs newsletter. A one year membership is $15 and includes the clubs newsletter. A subscribing membership is available to those not able to attend meetings and includes the clubs newsletter and all discounts available to normal members. A monthly Disk of the Month is available at each meeting for $2.

President: Kyle Miller 512-945-9469

SCAT SUBURBAN CHICAGO ATARIANS
AN INDEPENDENT COMPUTER USERS GROUP

SCAT general meetings are held on the first Saturday of each month at 10AM, unless otherwize indicated on the SCAT BBS. The location for the meeting is College of Dupage, Student Resource Center, Lambert Road between Roosevelt and butterfield Roads, Glen Ellyn, IL.

Membership dues are $20 per year per family. Membership benefits include subscription to Atari Interface magazine (AIM) and special club events. Anyone wishing to become a member can just come to a meeting and sign up or call SCAT's Bulletin board (708) 231-7227 or write SCAT, P.O. Box 72266, Roselle, IL 60172

San Diego Atari Computer Enthusiasts

General Meetings are the 3rd Monday of each month at the North Park Recreation Center Social Room, 4044 Idaho Street at 7pm. ST/8-bit workshop meetings are on the 1st Thursday of each month at the North Park Adult Center, 2719 Howard Street at 7 pm. All meetings are open to the public.

Annual SDACE subscription dues are $18 which includes increased BBS access, AIM subscription, SDACE newsletter subscription, and reduced rates on the Disk of the Month. SDACE's address is PO Box 900076, San Diego, Ca 92190.

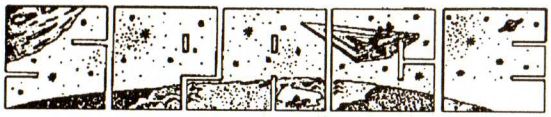
President Michael Bergman (619)558-7866

BBS 24hrs, 300-2400 68MB (619)689-815

SEVAC

South East Valley Atari Connection meets the third Saturday of each month at 10 AM at 3234 S. Fair Ln. (Eaton Business Park, just off of 48th Street and Southern), Tempe, Arizona. Yearly membership is $12.00. Membership includes reduced prices on PD ST and 8-bit libraries and monthly newsletter.

President Marc Dyer (602) 897-0314



SPACE, the Southcentral Pennsylvania Atari Computer Enthusiasts meet on the third monday of the month at the Camp Hill Mall Community Room. The doors open at 7:00 and the meeting begins at 7:30. Dues are $15.00 per year and includes a subscription to AIM and SPACE Probes, our official newsletter.

For more information, call either John Slade, President at (717) 938-3656 or John Hileman, Newsletter Editor at (717) 938-8753 or write to: SPACE, PO Box 11446, Harrisburg, PA 17108.

The Sacramento ST users group supports the ST and TT family of computers and meets on the second Wednesday of every month at the Pac Bell auditorium at 2700 Watt Avenue. The meeting starts at 7p.m. with an informal beginners session with the regular meeting starting at about 7:25.

Dues are $24 a year and membership benefits include, the club's newsletter, full access to the club sponsored bbs, a free raffle ticket at every general meeting, membership disk, access to our extensive disk library for an extremely reasonable rate and a subscription to AIM.

President	Mark Warner	(916)344-8320
ST-KEEP BBS	(916)331-6153	(916)729-2968

The Saginaw/Tri-City Atari User Group meets the last Saturday before the 18th of the month, at 9 am, at the Rudy Zauel Memorial Library, on the corner of Center and Shattuck in Saginaw Township, Michigan. Upcoming meetings are November 16th and December 14th 1991.

Club dues are still only $20.00, which provides support for both the 8 Bit and ST, and full access to the club's Public Domain library, disks are $3 for a double-sided disk packed full of goodies (2 for $5, what a bargain!). Check your mailing label, if you need to renew, (or haven't joined us yet!). A free PD disk is included with each new membership or renewal! DO IT NOW!

President Bryant LaFreniere (517)835-2234

President Claudette Tischler 226-5644

Membership dues $12 per Year with a one time sign up fee of $13. STANCE club meetings are held every third Monday of each and every month at B & G Electronics, (located at 15729 Madison Ave., Lakewood, Ohio 44107) starting at 7:15PM

STAR (ST Atlanta Roundtable) Atlanta, Georgia, meets the third Monday of each month at 7PM. Membership dues are $30 per year. Each member receives a copy of AIM and PD disks. Bring a friend.

President Rick Ostapower 404-487-4845

President Madelon Wilson (203) 735-6711
15 John St., Ansonia, CT 06401
ST.A.R.R. BBS (203) 421-4861

Membership in ST.A.R.R. includes a one-year subscription to A.I.M. and access to a large public domain library. Membership dues are $20 per year, and membership is open to all interested users. We meet on the third Thursday of each month (except August) at The Greater New Haven State Technical College, 88 Bassett Road, North Haven, CT.

The ST Users Network — supporting users of the Atari ST, Mega, and newer technology Atari computers. Open meetings are held on the 3rd Wednesday of each month at 7P.M. in the Murray High School. Send correspondence to: STUN, P.O. Box 27285, Salt Lake City, Utah 84127.

President	Randy Larsen	(801)967-0209
STUN's BBS "The Bolt"		(801)272-4243

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FREE UPDATES for 1 year, full support for both programs through the Atari Clubs BBS: (303)-343-2956 .

Salinas Valley Atari Computer Enthusiasts

SVACE is the only Atari user group in the Monterey Peninsula area. There is a free disk of the month for all attendants, please bring your own disk. Dues are $12 per year and includes Atari Interface magazine. Meetings are at 7:30 P.M. on the first Tuesday of the month at the Salinas Community Center. Demonstrations and raffles are a regular part of our meetings.

SVACE can be contacted at 672 E. Romie Lane, Salinas, CA 93901. Anybody interested in Atari computers is welcome.

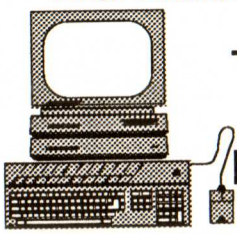
President	Gary Klugman	(408) 758-4894
BitStream BBS		(408) 449-2150

SWAG

Southwest Washington Atari Group

The Southwest Washington Atari Group has been holding its meetings at 6:30 p.m. on the last Sunday of the month (save July) at Clark County Fire District #5, Station 3 on 213 NE 120th, Vancouver, WA. Annual dues are $12 and SWAG can be contacted at PO Box 1515, Vancouver, WA 98668.

Allan Coker	President
The Bear Cavern BBS	(206) 574-1146



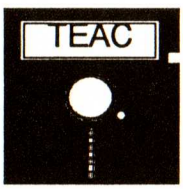
THUNDER BAY ATARI ST ENTHUSIASTS

Yearly membership fee of $25 includes 6 issues of the TEAC newsletter, the TEAC Educational 8-bit Disk Library catalog and a one year subscription to Atari Interface Magazine. For more information, contact TEAC at PO Box 1024, Laytonville, CA 95454.

TINKER ACE OF OKLAHOMA

Tinker ACE of Oklahoma meets the first Saturday of each month at 1 PM (12:30 set-up time) in the Moore Public Library, 225 S. Howard, just off of SW 4th and I-35 in Moore. TACE can be contacted at 16564 SE 18th, Choctaw, OK 73020 or at the TACE BBS (405) 366-1977. ST & 8bit support. Dues: Full - $15, Correspondence - $7. Dues are prorated with renewal each July.

President	Ron Hamilton	(405) 387-5649



TEAC

The Educator's Atari Club

President, Neville Denetto, 185 Varsity Row, Thunder Bay, Ontario, Canada P7B 5P2.

WACO

WESTMORELAND ATARI COMPUTER ORGANIZATION

Westmoreland Atari Computer Organization meets the second Tuesday of each month in the North Huntingdon Township Town House, Center Highway and Brownstown Road (just off Route 30 near the Hamilton car dealerships, Irwin, PA) at 7:30 P.M.

The $20 annual membership ($24 for family) now includes a subscription to AIM, as well as the vocal, consumer-oriented WACO Printout newsletter.

The Washtenaw Atari Users Group meetings are held every second Tuesday of the month at 7:30 pm in the Michigan Union building on the campus of the University of Michigan on State St. at the corner of S. University in Ann Arbor.

Club dues are $15 per year and provide access to the PD library and subscription to AIM. Meetings feature demos of both 8bit and ST software and hardware. Nonmembers and questions are welcome. Officers can be contacted by calling Craig Harvey at (313) 971-8576 or by BBS at Molin's Den at (313) 451-0524.

Our club meets every third Thursday from September through June with the exception of December when we meet on the second Thursday so as not to conflict with Christmas scheduling. We meet at 7:30 p.m. at the Roseville Gardens Community Centre, 6500 Roseville Garden Drive, Windsor, Ontario, CANADA.

Our club dues are $25(Canadian) per family membership. Each membership entitles you and your family to attend our regular meetings, as well as receive the AIM magazine as well as our own monthly publication, 'exSTracts'.

President	Brian Cassidy	(519) 966 0305

WNYAUG meets at 7:30 pm on the first Thursday of each month in room 116E, Bacon Hall at the State University College of Buffalo Campus, 1300 Elmwood Ave.

Dues are $15 for new members and $12 for renewing members. Send checks and correspondance to WNYAUG, PO Box 59, Buffalo, NY 14216.

President	Mike Husband	(716) 825-8486
The Wizard's Attic BBS		681-1654

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☐ Mac/Spectre (12 DS disks) — $50
☐ Atari 8-bit (12 SS/SD "flippies") — $50

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☐ Mac/Spectre (12 DS disks) — $60
☐ Atari 8-bit (12 SS/SD "flippies") — $60

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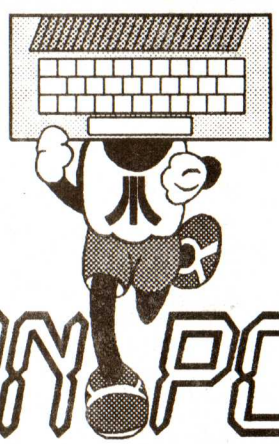

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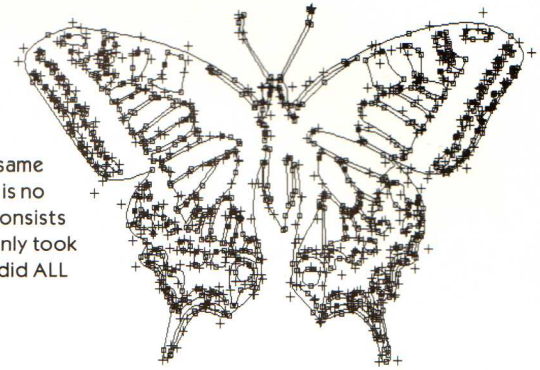
This small butterfly is unremarkable. The others are a new species you can breed on your Atari computer.

To the left is a pixel-based .IMG picture. In other words, the picture is made up of dots. It's a 58k file. The image can't be enlarged much more than this without the ragged edges showing. (In fact, they're showing already.)



To the right is a snapshot of the same image after it has been traced. It is no longer made up of dots. It now consists of lines and bézier curves. This only took a few minutes and Avant Vector did ALL the work for you.

True vector tracing has arrived.

Avant Vector is a cutting-edge graphics tool that's fast, easy to use and surprisingly versatile.

The large butterfly wing on the right is a vector image created by Avant Vector. Using "automatic tracing," a bit image graphic (the smaller butterfly) was converted to a vector graphic, resulting in the smooth output you see here.

Vector graphics have big advantages over bit image graphics - they make much smaller files, and they can be scaled to any size without losing resolution or looking blocky. And Avant Vector's tracing routines are highly sophisticated; in a recent review of 7 Mac, PC, and ST auto-tracing programs, Avant Vector was rated best of the bunch! This means there's less editing after tracing an image, and you get more work done in a shorter time.

Avant Vector supports .PI3, .PC3, .IMG, .BLD, .PIC or .PAC formats. You can trace Mac, PC or Amiga graphics, in .TIF, .IMG or .IFF formats. The plotter version (Avant Plot) can also load and save HP plotter files.

No matter which DTP package you use, Avant Vector is a wonderful companion. It creates .CVG files for Outline, Calamus or Repro Studio. And .GEM files for use in programs that support GEM3 metafiles. Avant Plot allows EPS importing and exporting, and a full range of professional plotting, drawing and cutting options.

Since Avant Vector is a full featured vector graphics package, you can touch up any picture you've auto-traced, or draw pictures from scratch - with an intuitive, speedy interface you'll learn in a matter of minutes!

Call or write CodeHead Software for more information about Avant Vector (and its amazing cousin, Repro Studio). Special introductory pricing is available until December 31, 1991. Act now and save!

AVANT VECTOR

This is the .CVG vector version: it can now be enlarged or reduced at will, and the file size is down to 10k. The .GEM version is about 20k but otherwise identical. As vector graphics, the images are easily and quickly manipulated - you can stretch, skew, rotate, resize, fill with gray scale percentages, outline, and much more. Up to 7 windows can be open at once, with clipboard features for cutting and pasting.

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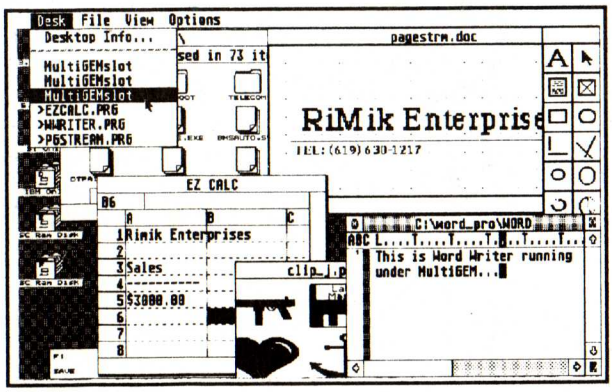
MultiGEM

Multitasking System for the Atari



"It's like MultiFinder* for GEM**"

Many of our customers feel this way after using MultiGEM. A true multitasking system for the Atari ST, STE and TT computers. Run up to six GEM, TOS, ACC or TTP programs all at the same time. TOS and TTP programs run in their own GEM windows. Run accessories right from the "Desk Top". Adjust and allocate memory to any program running under MultiGEM. MultiGEM is completely compatible with most Atari programs. Imagine downloading files with your telecomm. program, printing out a document with your word processor and working with a DTP program all at the same time. It is possible using MultiGEM! MultiGEM is a TRUE multitasking "OS" that is flexible and easy to use. *Works great with CPU accelerators like Fast Technology's T-20.*

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MultiGEM Utilities Disk #1

The MultiGEM Utilities were designed to enhance MultiGEM's performance. There are four programs included in the MultiGEM Utilities Disk #1. MuliMAT will allow you multask format a floppy disk. With Multi-Copy you can multitask copy files. Multi-Print will let you multitask print ASCII text files. Multi-Launch is a complet program launching system that will allow you to run other programs from within any GEM program. These utilities are a must for MultiGEM users.

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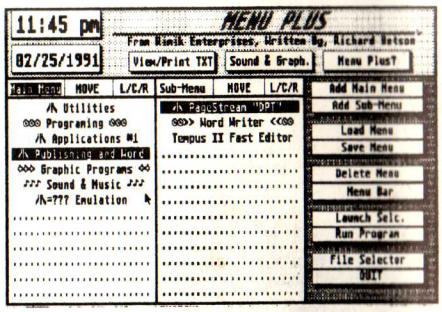
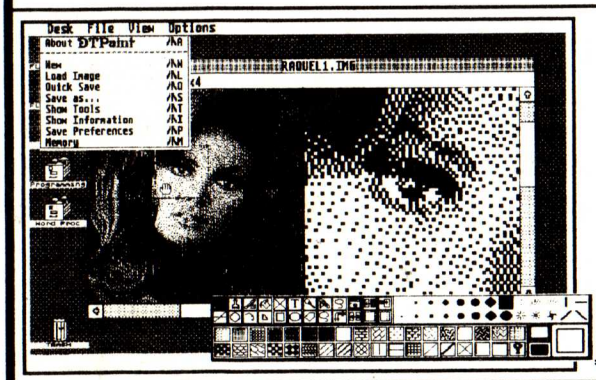
Menu Plus

Only $39.95



Menu Plus is a full featured "Desk Top" enhancement that allows you to quickly launch (run) any program on your hard disk or floppy disk. Menu Plus uses a creative menuing system that allows you to set up a Main Menu with corresponding Sub-Menus, quick access to over 160 programs, access to the File selector and the ability to launch programs directly from it. View Degas, NEO and Spectrum 512 pictures. Show or print a text file. Play and edit ST-Replay sound files. System settings like screen colors, Blitter Chip and Time and Date can all be set and saved from Menu Plus. Menu Plus includeds a special password feature. All of this and Menu Plus only uses 32k when running a program. ACC version of Sound, Text, and Graphic features included.



DTPaint *#1 Image Editor*

DTPaint is a full function high resolution paint program in a **"Desk Accessory"**. Because DTPaint is a desk accessory it can be used to edit IMG, DEGAS and MacPaint within your favorite Desk Top Publishing package. DTPaint supports GDOS, GPLUS. Included is a full array of tools and has "MAC" like features such as **"Lasso"** and **"Jack Knife"**. Works with Atari^ ST, STE and TT computers.

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**GEM is a Trade Mark of Digital Reserch ^Atari,ST,STE,TT are Trade Marks of Atari Corp.

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